

INCLUSIVENESS, CONTESTATION  
AND  
CONFLICT PROCESSES

A DISSERTATION PRESENTED

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# ABSTRACT

This thesis argues that the relationship between regime type and interstate conflict processes is mainly driven by two persistent features of democracy – inclusiveness and contestation – and these two dimensions alone explain various interesting phenomena including but not limited to, autocratic peace, democratic peace, arsenal of democracy, arsenal of autocracy, autocratic and democratic triumphalism. It uses a game-theoretical formal model to explain how and why these two dimensions shape states’ propensity to initiate a violent conflict, governments’ ability to channel resources for defense expenditures during a war and propensity to win a given war. I draw evidence from various advanced statistical techniques and diplomatic history to examine the relationship between domestic level variables and interstate conflict processes. I employ a quantitative process tracing approach and analyze individual links for the empirical implications of the theory on three major conflict processes. Moreover, in an in-depth case study I show how contestation and inclusiveness dimensions shaped the defense expenditure, conflict initiation as well as war outcomes for Prussia, Denmark, Austria and France during the Wars of German Unification in 19th century. Empirical evaluation of both quantitative and qualitative data indicate that regimes with lower levels of contestation and/or higher levels of inclusiveness were able to generate higher war effort, more prone to initiate conflicts and they won wars or forced their opponents to capitulate, whereas regimes with higher levels of contestation and/or lower levels of inclusiveness were relatively limited in their war effort generation and timid in conflict initiation behavior as well as in resolve and fragile throughout the war.

**Key Words:** Interstate Peace, Deterrence, Defense Expenditure, War Outcomes, Regime Type

# ÖZET

Bu çalışma rejim türü ve uluslararası çatışma süreçleri arasındaki ilişkinin demokrasinin iki ana ögesi olan kapsayıcılık ve rekabet tarafından şekillendirildiğini ve bu iki ögenin otokrasilerin ve demokrasilerin barış, savaş zamanı savunma harcamaları ve savaş sonucuna ilişkin performanslarını açıklamakta yeterli olduğunu ortaya koymaktadır. Çalışma demokrasinin bu iki boyutunun devletlerin çatışma başlatma, savunma harcamalarına kaynak aktarımı ve savaşı kazanma olasılığını nasıl ve neden şekillendirdiğini oyun teorik matematiksel bir model ile açıklamaktadır. Bunu yaparken, ileri istatistikî teknikleri ve diplomatik tarih incelemesi ile iç politika değişkenleri ve uluslararası çatışma süreçlerini incelemektedir. Sayısal süreç takibi ile teorinin ampirik çıkarsamalarını bahsedilen üç ana çatışma sürecinde incelemektedir. Buna ek olarak, niteliksel süreç takibi ile kapsayıcılık ve rekabetin savunma harcamaları, çatışma başlatma davranışı ve savaş sonuçlarına ilişkin etkilerini Almanya'nın birleşme savaşları sırasında Prusya, Danimarka, Avusturya ve Fransa örnekleri üzerinden göstermektedir. Niteliksel ve niceliksel verinin ampirik değerlendirmesi sonucu şu bulgulara ulaşılmıştır: rekabet seviyesinin düşük seviyelerde ve/veya kapsayıcılığın yüksek seviyelerde olduğu rejimler daha fazla savunma harcamasında bulunmuşlar, çatışma başlatmaya daha meyilli olmuşlar ve girdikleri çatışmalarda savaşı kazanmışlardır. Öte yandan, rekabet seviyesinin yüksek seviyelerde ve/veya kapsayıcılığın düşük seviyelerde olduğu rejimler savaş harcamalarında görece daha sınırlı, çatışma başlatma davranışında ve kararlılıkta daha zayıf ve savaş sürecinde daha kırılığandır.

**Anahtar Sözcükler:** Uluslararası Barış, Caydırıcılık, Savunma Harcamaları, Savaş Sonuçları, Rejim Türü

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IN THEIR LOVING MEMORY,  
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# Chapter 1

## INTRODUCTION

IN HIS PRINCE, MACHIAVELLI RECOMMENDED, AUTOCRATIC LEADERS, IF THEY WANT TO BE AROUND LONGER, THEY SHOULD BE ABLE TO FIGHT BETTER. Machiavelli (1988, 35) added: “the nobles cannot be satisfied without injuring [people]” and hinted the incompatibility of nobles’ interest in financing such a war and the limited ability of the leader to generate enough funds in the face of their unwillingness. He gave additional tips to his *Prince* Lorenzo de Medici to reverse this problem: “Those rulers who have achieved great things ... have all been considered mean [parsimonious]; all the others have failed (Machiavelli 1988, 56). Machiavelli continued: “because of [their] parsimony, [their] revenues are sufficient enough to defend [themselves] against any enemies that attack [them]” and to undertake military campaigns successfully and he gave examples of Pope Julius II, the then King of France Louis XII and the King Ferdinand of Spain.

Three centuries later, Otto von Bismarck made practical use of much of Machiavelli’s advice from Prince and heeded the importance of his maxims on the logistics of warfare. Prussia Bismarck inherited had already experienced various international humiliations first in 1850 and second in 1860 – one of which was considered as the worst humiliation a European state had ever

been subjected to. Two years before Bismarck came to power an article in *The Times* observed that

Prussian army [was] so weak that no one count[ed] her as a friend; no one dread[ed] her as an enemy ... always leaning on somebody and always getting somebody to help her, never willing to help herself ..., present in Congresses, but absent in battles ... ready to supply any amount of ideas or sentiments, but shy of anything that savours of the actual (The Times, Oct 23, 1860).

Ten years after this commentary, however, with a series of victories against Denmark, Austria, France and other small German states, Prussia under Bismarck unified most of the German states into a powerful German Empire and transformed the balance of power within the continent along with its political map. The secret to his success in these wars – the lack thereof during the tenure of previous prime-ministers – was his ability to be parsimonious and discretionize large sums of resources beyond the control of *Landtag* – Prussian parliament – in an uncontested domestic political arena.

On the opposite end, in *Discourses on the First Decades of Titus Livius*, Machiavelli led us to a completely different direction in his explanation of why compared to other cities, the city of Rome or Athens in particular attained *supreme greatness* in their regions and sets the maxims on achieving military effectiveness and reaching greatness for republics.

It is a marvelous thing to consider what greatness Athens came in the space of hundred years after she freed herself from the tyranny of Pisistratus ... It is very marvelous to observe what greatness Rome came to after she freed herself from her kings. The reason is easy to understand, because not individual good but common good is what makes cities great. Yet without doubt this common good is thought to important only in republics because ... those benefited by the said common good are so many that they are able to press [for] it (Machiavelli, 1965, 329).

In *Prince* and the *Discourses*, Machiavelli revealed us two different dynamics that lead to greatness in dictatorships in his examples of Papal States, France and Spain in 16th century and republics in Athens in 527 BC and Rome in 293 BC. Whereas in the former the ability of the leaders to discretionize resources beyond the control of nobles served to their capacity to finance their wars and bring greatness, in the latter it was the size of the people that kept the leader accountable created a need for the leaders to provide the “common good” of *supreme greatness*.

Following the timeless insights of Machiavelli, I address three puzzles within defense expenditure, conflict onset and war-outcome literatures which will be discussed in depth in corresponding

chapters: Within the war time defense expenditure literature, two contradictory empirical findings are observed by proponents of arsenal of democracy strand and arsenal of autocracy strand. These specific strands more specifically argue that democracies and autocracies outspend their enemies. As a result, we have either a contradiction, measurement error or an underspecified empirical model. Or we are missing a larger model that simultaneously explains the conditions under which democrats and autocrats can outspend their rivals during a war. Moreover, the implications of this dichotomy within the conflict onset, initiation and escalation literatures went unheeded. The deterrent capacity anticipated by parties and its subsequent effects on resort to violence has been partially addressed and partially overlooked. Empirical findings for informational (costly or confirmatory) and constraint (normative and structural) models illuminate us only partially about how this anticipation effect works throughout the initial phases of interstate disputes. In addition to these two problems, the war outcome literature indicates that autocratic and democratic states are more likely to win the wars they become involved and so far no rigorous theoretical effort has been made in this particular literature. As a result, in the empirical literature, democracy's role in three major conflict processes -namely, war-time military build-up, conflict onset/reciprocation behavior and war winning is a matter of dispute. A much clearer understanding of the relationship between democracy and the three sets of dependent variables - war time militarization, conflict initiation and reciprocation and war outcome - can be obtained by constructing a theory upon the dimensions that constitute democracy. Since democracy is a multi-faceted concept, we should pay attention on how different dimensions of democracy affect incentives facing leaders given their aim of reselection in future periods, hence, their policies. Drawing upon the selectorate theory of war, I construct a formal model of a domestic political system in which inclusiveness and contestation dimensions are included in the theory separately. Now, having introduced what I want to explain, I present a short summary of my approach - the opportunity-willingness theory of conflict processes.

## **1.1 The Opportunity and Willingness Theory of Conflict Processes: A Summary**

As a starting assumption for the theory, like other theories within international relations literature (e.g. Fearon 1994, Bueno de Mesquita et. al. 1999), leaders are assumed to seek their offices<sup>1</sup>.

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<sup>1</sup> I am not the first to use willingness and opportunity labels within the interstate conflict literature. The meanings I attach to these two concepts in this study are vastly different from those used in "infectious" war diffusion literature



They care about continuing their office above anything else. Within the literature, leaders are generally assumed to care about their reselection today and the literature imposes a myopic outlook on leader's strategies (e.g. Fearon 1994; Smith 1996; Bueno de Mesquita et. al. 1999). The main implicit justification for this approach is obviously leaders' today reselection is the most hard-pressing question they have at hand. I keep this assumption and assume further that they also care about the implications of their actions today on their reselection potential in future periods. As a result, I move from one-period survival ensuring strategies to multi-period survival ensuring strategies and model how leaders behave in such a setting.

The new question in this scenario for leaders becomes how to hold their offices in a multi-period framework in the coming elections (as in polities where they affect leaders' office-holding ability) or coming committee, politburo or councils evaluations (as in polities where elections are not either present or do not determine leaders' survival). In this multi-period framework, unless leaders fail terribly in satisfying their supporters of the previous elections, they continue to keep their offices. However, day-to-day policies of leaders do not continue in a vacuum. Leaders, most of the time, face with exogenous economic, political or natural shocks that can destabilize their rule. In each instance, supporters update their beliefs about their leaders' competence and evaluate what they would have gained if another person kept the office. If they do not find a satisfying answer as to why they should keep the leader, it is reasonable for them to depose the leader.

As a result, leaders have incentives to be ready for such shocks and they, as the ultimate insurer of their own office, have incentives to engage in activities that increase their ability to contain such shocks. Hence, leaders' problem becomes forgoing some "luxury" today in favor of "necessities" tomorrow as money is only valuable for them to the extent it ensures their survival. Expenditure for a leader is luxury if it does not play a central role in his survival and expenditure is necessity if it is central for his survival. Hence, if a leader is sure that there will be no shocks whatsoever tomorrow, then the supporters can live under luxurious conditions without a friction. However, the problem is leaders are not sure about these shocks most of the time and they cannot proactively prevent them from *occurring*. Hence, it is best for leaders to provide necessities today and tomorrow rather than luxury today and anything below necessity tomorrow.

So what is luxury and what is necessity for leaders' survival? The answer to this question varies for every leader and is ultimately determined by domestic political institutions under which a leader operates. If the leader can cheaply secure office, let's say by spending  $x$  dollars, any

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(e.g. Siverson and Starr 1990), which focuses on the effect of factors such as contiguity and alliances on war joining behavior.

spending of  $x$  is a necessity and anything more than  $x$  is luxury for leader's survival prospect. So what are the factors that affect the size of necessity expenditures? There are two main factors: (1) the cost of defection that might be suffered by supporters, should they defect and (2) the benefit of defection that might be enjoyed by the supporters due to their choice for someone else to take the office. As a result, anything that decreases the costs and increases the benefits of defection decreases the leader's ability to secure office with  $x$  dollar expenditure and leader needs to increase the size of the necessity expenditure to  $x + y$  dollars ( $y$  is the additional expenditure leader needs to make if he wants to stay in power). In a similar logic, anything that increases the costs and decreases the benefits of defection increases leader's ability to secure office even below  $x$  dollars and leader can perfectly be fine with a spending of  $x - z$  dollars ( $z$  is the size of the cut in spending leader can make and remain in office). We can conclude that spending of  $x$  dollars is luxurious for a leader that can spend  $x - z$  dollars and is below necessity level for a leader who must spend  $x + y$  dollars to remain in office.

One important caveat is that leaders can control the cost of defection whereas they cannot determine the benefits their supporters may get from a domestic political challenger. Thus, I focus on costs of defection and analyze how these costs vary within different domestic political settings. The cost of defection is higher in polities where leaders can punish defectors if they retain their power after defection of some supporters. Dahl (1971) calls this type of regimes as closed hegemons (or inclusive hegemons depending on the size of participation within the polity) as they do not secure an outside option (of deposition) if key supporters' interests are not well-served by their leaders. The cost of defection is lower in polities where key supporters can defect without major repercussions. Dahl (1971) calls this type of regimes as competitive oligarchies (or polyarchies depending on the size of participation within the polity). To connect this discussion to luxury-necessity distinction, closed hegemons and inclusive hegemons have lower necessity spending thresholds, whereas this threshold is higher in competitive oligarchies and polyarchies. Hence, as the domestic political scene becomes more contested, the threshold expenditure of necessity for today goes up and the money leader can extract each year for insurance goes down. As a result, contestation within the regime today diminishes the ability of leader to contain a shock tomorrow and perfect contestation brings about myopic leaders who care about their reselection only today. This constraint does not exist in uncontested regimes and leaders can use a share of one year's budget (proportional to uncontestedness of their rule) to solve their problems in another year. This very quality allows leaders to move beyond the myopic look and give them an ability to make long-term plans for their survival.

As a shock that requires attention of the leader, I assume presence of a disputed issue as an

exogenous phenomenon and two leaders of states, let's call A and B, find themselves bargaining on how to share the issue and resolve the dispute. In this scenario, parties' resolve and costs about fighting are common knowledge given they do not hide/misrepresent private information (in reality private information is prevalent and previous literature found that war occurs due to incentives to misrepresent private information (e.g. Fearon 1995) and I make this assumption of complete information to isolate the new causal mechanism that lead to war even in the absence of private information and to show how this theory differs from existing studies). Let's also assume that Leader B is dissatisfied with the status quo share it currently has from the disputed issue. Given B's dissatisfaction, A makes an offer to B and given this offer B decides whether to accept the offer or reject it. If B rejects the offer, both parties go to war and resolve the issue by accruing the financial cost of military mobilization.

### 1.1.1 Military Expenditure Decision

Let's first consider what happens when B rejects the offer, hence, initiates a war: A and B start militarization by accruing military expenditure. When each leader considers how much to spend for military expenditure, they assess two factors: how much money they have at hand from current budget and previous years (opportunity effect) and/or how much their supporters are willing to forgo the private rewards they receive in favor of a war expenditure (willingness effect). Leaders' ability to fund the war increases as the money they have at hand increases and the amount of money their supporters would be willing to sacrifice for war expenditure increases. Now I examine how these two factors are shaped by the domestic political institutions:

*Opportunity Effect:* a leader's budget is the sum of the current years' budget and a proportion of each previous year's budget (remember the cost of defection within the polity determines how much leader kept in previous years). As a result, depending on the level of contestation within the polity, some leaders were able to amass more money than others (increasing contestation shrinks this amount and decreasing contestation increases it). Hence, leaders' ability to make military spending increases as contestation decreases. As a result, it is hypothesized as:

***H<sub>p</sub> 1:*** *Decreases in the level of contestation in a polity increases military expenditure.*

*Willingness Effect:* How are domestic political institutions related to war expenditures? Each leaders' coalition compares the financial rewards they can receive from the leader in the form of private goods (leader divides the budget equally among the members of the coalition and distributes as private goods as in selectorate theory of war (Bueno de Mesquita et. al. 1999)) with the

pay-off they receive from increasing military expenditure. In this latter case, with a probability they receive the disputed issue in its entirety (victory) and this probability of victory increases as their state's military expenditure increases and as the opponent's military expenditure decreases. So how do they decide? They depose a leader if the leader uses the budget for military expenditures and what they can get in the form of financial rewards is higher. They also depose the leader if he distributes the budget in the form of financial rewards and what they can get from increasing the probability of victory through military expenditure is higher. As a result, leaders choose to use the budget for military expenditure as long as the financial rewards per supporter is lower than the utility of fighting (in this case, they expect to receive victory with the probability of victory). Similar to selectorate theory's deduction, as the size of the coalition (the supporters with the power to keep or depose the leader) increases the financial rewards distributed to each become very small compared to victory outcome. Thus, leaders anticipate this and expend resources to financing the war to keep their offices. In Dahl's typology, this dimension corresponds to the inclusiveness feature. As a result, it is hypothesized as:

*Hp 2: Increases in the level of inclusiveness in a polity increases military expenditure.*

### **1.1.2 War Winning Probability**

Given these two deductions of the theory, now I evaluate how inclusiveness and contestation affect probability of victory if there is a war. Since military expenditure of a state increases its victory probability and that of the opponents decrease it, I now deduce the hypotheses of the theory related to war prowess of states. Given military expenditure of a state increases as contestation within the polity decreases, the probability of victory (1) increases as contestation within the state decreases and (2) decreases as contestation within the opponent state decreases. As a result, it is hypothesized as:

*Hp 3: Decreases in the level of contestation in a polity increases the probability of victory of the state.*

*Hp 4: Decreases in the level of contestation in the opponent state decreases the probability of victory of the state.*

Given military expenditure of a state increases as inclusiveness within the polity increases, the probability of victory (1) increases as inclusiveness within the state increases and (2) decreases as inclusiveness within the opponent state increases. As a result, it is hypothesized as:

*Hp 5: Increases in the level of inclusiveness in a polity increases the probability of victory of the state.*

*Hp 6: Increases in the level of inclusiveness in the opponent state decreases the probability of victory of the state.*

### **1.1.3 Resort to Violence & Deterrence**

How does this militarization capacity and the resultant military advantage shape states' deterrent capacity? If the opponent has a high militarization capacity, targets should avoid escalatory behavior that result in war and potential initiators should avoid an initiation to begin with. As a result, since militarization capacity is increasing in inclusiveness and decreasing in contestation, it is hypothesized as:

*Hp 7: If a dispute is initiated, a decrease in initiator's contestation level is likely to decrease target's propensity to escalate the dispute to war level.*

*Hp 8: If a dispute is initiated, an increase in initiator's inclusiveness level is likely to decrease target's propensity to escalate the dispute to war level.*

Moreover, a dissatisfied state is less likely to engage in a status quo changing behavior if the opponent has a higher militarization capacity. Thus, given militarization capacity is increasing in inclusiveness and decreasing in contestation, it is hypothesized as:

*Hp 9: A decrease in targets' contestation level is likely to deter an attack or status quo changing behavior by other states.*

*Hp 10: An increase in targets's inclusiveness level is likely to deter an attack or status quo changing behavior by other states.*

Hence, inclusiveness and uncontestedness generate deterrence for states.

### **1.1.4 Inter-Polity Peace & Bargaining Failure**

So given the implications of the model on deterrence, how does A as the offer-maker manipulate B's decision? A knows that B is not going to fight if A makes an offer that will make war an unprofitable option for B. For A to make such an offer, A should also not be able to profit from war as well. If A can still profit from war, A makes an unacceptable offer to B. Let's say the size of the offer that makes war unprofitable for A is  $O_A$  and the size of the offer that makes war unprofitable for B is  $O_B$ . Parties will resolve the issue peacefully through negotiation if the offer

$O_B$  is smaller than  $O_A$ : that is B requires a smaller offer than A would be willing to give without a war, hence, in this scenario, A gives  $O_B$  to B and the dispute is resolved peacefully. War occurs when the opposite is true:  $O_B$  is larger than  $O_A$ , that is B requires a larger offer than A would be willing to give, because A can still profit from war.

So what are the conditions for making war profitable/unprofitable for both parties? Fighting is profitable if any party can make an incremental change in its military expenditure and ensure a victory outcome. For parties to make such an incremental change, the returns for each additional dollar spent should equal to the utility they derive from doing so. When the militarization capacity is lower for both parties, an incremental deviation from the current militarization level brings a very big reward – the disputed issue in its entirety. An incremental deviation from the current militarization level is not profitable when the costs of war approach the expected value of the issue under dispute. In this case, it is better for both parties to resolve the issue under dispute with negotiation as a simultaneous increase in both parties' defense expenditures increases the financial cost of war, while keeping probability of winning constant. Thus, war is no longer a profitable option for both parties. They would rather share the disputed issue through negotiation.

Since inclusiveness and uncontestedness increase militarization capacity of both states, we can now deduce the conditions for interstate war and peace: Pairs of countries with low inclusiveness scores can incrementally deviate from their given level of militarization and the pay-off of doing so is victory, hence, peace is less likely to attain. In a similar vein, those with high contestation scores make an infinitesimally small change in their military expenditure and achieve victory. However, once the militarization capacity exceeds a certain threshold for both parties, no one can achieve profit from going to war as costs are sufficient enough to deter both parties from going to a war. As a result, parties with high inclusiveness scores are more likely to be peaceful with one another and parties with low contestation scores are more likely to be peaceful with one another. Thus, the theory brings in these last two hypotheses:

***Hp 11:*** *A decrease in dyadic contestation is likely to decrease the probability of a conflict onset in a dyad.*

***Hp12:*** *An increase in dyadic inclusiveness is likely to decrease the probability of a conflict onset in a dyad.*

I now have deduced all the hypotheses related to the dimensions of democracy. Given this overall picture, the contribution of this theoretical model is two-fold: A new complete information model of warfare where war attains in equilibrium and explanation of various seemingly seemingly distinct and somewhat contradictory phenomena within the democratic peace research

program.

## 1.2 Opportunity-Willingness Theory: Contribution to Cumulative Knowledge

The theory shows that war attains in equilibrium in a complete information scenario. Previous models in the literature find war in equilibrium if there is incomplete information within the model (e.g. Fearon 1995) or if there are commitment problems between two parties even if no one hides private information (Powell 1999). My theory does not use either assumption and with a complete information setting, it explains war and peace as a result of deterrence capacity of states.

The model shows that contestation and inclusiveness features shape states' propensity to initiate a violent conflict, governments' ability to channel resources for defense expenditures during a war and propensity to win in a given war and these two dimensions alone explain various interesting and unify various seemingly contradictory phenomena<sup>2</sup>. The contribution of the theoretical framework for democratic peace research program is two-fold.

First, it corroborates existing explanations of selectorate theory of war and introduce new causal mechanisms how dimensions of democracy affect the three major conflict processes: In its explanation of arsenal of democracy, democratic triumphalism, democratic deterrence and democratic peace, theory corroborates selectorate theory's predictions and unproven propositions. The original framework proposed by Bueno de Mesquita et. al. (1999) is not fully tractable and the authors can only mathematically derive military expenditure propositions, all the remaining insights of the theory are not rigorously and precisely derived. My contribution is to mathematically derive not only military expenditure proposition (arsenal of democracy), but also war outcome (democratic triumphalism), deterrence (democratic deterrence) and peace (democratic peace) propositions in a mathematically precise and tractable way. In doing so, I show rigorously how inclusiveness dimension - the size of the leaders' coalition - affects the three main conflict processes.

Secondly, I bring in the implications of contestation dimension on leaders' office-seeking strategies and introduce new mechanisms in the causal chain of war expenditure, war outcome,

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<sup>2</sup> To my knowledge, the only theory that explains all these dependent variables simultaneously is selectorate theory of war and below I discuss my differences from this study and contributions of this thesis to our cumulative knowledge.

deterrence and interstate peace. The model provides novel predictions on why and how contestation is a liability for foreign policy prowess and through contestation channel, I present various propositions on military expenditure (war-chest of autocracy), war outcome (autocratic triumphalism), deterrence (autocratic deterrence) and peace (autocratic peace). In doing so, I derive all the propositions mathematically as in the case of inclusiveness related propositions. Combined together, the theory depicts a picture of how regime type conceptualized in terms of Dahl's dimensions are related to main interstate conflict processes under a single conceptual model.

I draw evidence from various advanced cutting-edge statistical techniques, where I subject each of the intermediate links in the causal chain to further analysis. This is a form of quantitative process-tracing as advocated by the proponents of case study and multiplies the implications from each observation. Analysis of the individual links for the empirical implications of the theory on three major conflict processes is a means of bolstering confidence in the theory. Moreover, in an in-depth within and between case variation design, I show how contestation and inclusiveness dimensions shaped the defense expenditure, conflict initiation as well as war outcomes for Prussia, Denmark, Austria and France during the Wars of German Unification in 19th century. The dissertation's tripartite methodology integrates formal modeling, advanced statistical methods and qualitative case studies, where formal model ensures within-consistency of the theory and generates novel predictions, transformation of the deterministic formal model to statistical quantitative model and analysis of large-N historical patterns in the data for the last two hundred years ensures generalizability of the theoretical predictions and an in-depth case study approach to Wars of German Unification (1863-1871) allows for a detailed process-tracing both to test the theory and to derive more specific generalizations that are not visible through large-N analysis, which, in turn, sharpens the theoretical mill.

### 1.3 Plan of the Manuscript

The manuscript proceeds as follows: **The Opportunity-Willingness Theory of Conflict Processes** (Chapter II) develops a second-image formal model on the dimensions of democracy, contestation and inclusiveness, where the key consideration is that the leaders, above anything else, desire to stay in office and generates comparative statics predictions from the model on how contestation and inclusiveness dimensions of democracy in a challenger's and opponent's polity encourage or dishearten leaders to adopt revisionist policies, their military expenditure decisions



and the endogenous war-winning probabilities. The common rationalist explanations for war (e.g. Fearon 1995) focus on private information as the main cause. In this chapter, I present a complete information scenario where war and peace attains in equilibrium.

Following these insights, in **Containing the Shock: Dimensions of Democracy and a Model of Endogenous Armament** (Chapter III), I analyze how these different modes and orders, conceptualized within a Dahlian framework, create incentives and opportunities for leaders to increase their defense expenditures during an interstate war given resource constraints and simultaneously explain the two long-standing and somewhat competing propositions within the defense expenditure literature: arsenal of democracy and arsenal of autocracy. I show that lower levels of contestation drives the empirical regularity of arsenal of autocracy - the propensity of some autocratic regimes to outspend their opponents - and re-label the phenomenon as the war-chest of autocracy, whereas higher levels of inclusiveness drives the arsenal of democracy. Empirical analysis of the hypotheses with a fully dynamic and general Error Correction Framework indicate that these two seemingly contradictory regularities within the literature are actually special cases of this parsimonious theoretical model.

How does this war expenditure capacity affect war outcomes? In **Machiavellian Moment: Explaining War Outcomes** (Chapter IV), I set to answer a centuries-old question: Is democracy a foreign policy luxury that states cannot afford during war? The contemporary scholarly empirical literature indicates that the answer to this question is quite mixed and they vary from “Yes, they are”, “Yes, but it hardly matters” to “No, they are not” and “No, they are even worse”. The literature finally indicated both democratic and autocratic advantage. As a result, in the empirical literature, democracy’s record as an agent of military effectiveness has been a matter of dispute. Since democracy is a multi-faceted concept, we should pay attention how these different dimensions affect incentives shaping leaders’ optimization problems given their aim of reselection in future periods and construct a (formal) theory upon the dimensions that constitute democracy to bring a much clearer understanding of the relationship between democracy and war-winning: whereas the domestically less contested polities are more likely to win the wars they become involved and address the insights of the pessimists and explain autocratic triumphalism, inclusiveness dimension pull the war-winning propensity upward and give us insights on the sources of democrats’ fighting prowess. I tested this model with a data of all wars from 1815-2007 with a recent data that measures both dimensions of democracy. Statistical analyses with univariate and bivariate variants of ordered probit model confirm the predictions of the game theoretical model and corroborate Reiter and Stam’s curvilinearity hypothesis with a parsimonious model and simultaneously explains democratic triumphalism and autocratic triumphalism. The findings also

address concerns raised in the recent literature that regime type – measured as a composite index – hardly matters. The opposing effects exerted by the two dimensions explain why a composite index had a small magnitude in previous research.

How does this militarization capacity and the latent military advantage shape state's deterrent capacity? In **Selection Institutions and Resort to Violence** (Chapter V), I go one step further and evaluate the theory's predictions on leaders' decision to initiate a conflict and escalate a conflict to a full-scale war given a level of deterrent capacity of the opponent. I compare this deterrence aspect of the model against the alternatives in the literature: informational (costly and confirmatory signaling games) and constraint models (normative and structural). In order to gain additional leverage and distinguish the overlapping implications of the three approaches, I employ directed and non-directed dyadic frameworks. The empirical evidence gives full support for all the six implications of the deterrence approach, whereas we receive only partial support for informational and constraint models, which overlap with some of the implications of the deterrence model. Directed dyadic analyses within a bivariate probit framework indicate that lower levels of contestation and higher levels of inclusiveness of a target decreases the probability that a challenge will be issued against them in the first place, hence, they are less likely to face direct-general deterrence failure and potential challengers are less likely to engage in actions of limited probes such as threat to or actual use of force. These two dimensions also allow leaders to generate direct-immediate deterrence: The conflicts initiated by uncontested or inclusive regimes are less likely to escalate to a full-scale war. As a result, the model simultaneously explains autocratic and democratic deterrence. Non-directed dyadic analyses are indicative of the peace among democracies and autocracies resulting from the deterrence mechanism: Uncontested regimes and inclusive regimes are not only more deterrent, but also they are more likely to peaceful toward each other's kind.

In addition to quantitative process-tracing studies of Chapter III-V, where I statistically test the predictions of the theory on war effort, war outcomes and deterrence/peace nexus, in **Financing the War Effort: Bismarck's Road to German Unification** (Chapter VI), I employ an in-depth case study approach to Wars of German Unification: Humiliation at Olmütz (1950), Schleswig-Holstein War (1864), Austro-Prussian War (1866), Franco-Prussian War (1870-71). This design now only shows that there is a concomitant variation in connected causal chains as predicted by the theory but also demonstrates that the predicted causal processes are at work in each case by deriving evidence not only from historical documents but also from the prevailing consensus among authoritative historians. I reconstruct the historical narrative on pre-war and war periods in Prussia, Denmark, Austria and France with the conceptual model and focus on the

role of domestic political institutions on the three processes of interstate conflict: namely, conflict onset decision, war preparation as well as war outcome. I show that the conflict behavior in all of the cases hinged upon the cumulative effect of incumbent leaders' capacity to resist domestic oppositions' challenges both during and preceding years of wars in mainly the uncontested regimes of Prussia in post-1862 and Austria in 1850. These cases can be compared to the competitive regimes of Prussia in 1850 and 1861, Austria in 1866 and France in 1861-1871 in three broad conflict processes: conflict initiation, war effort generation and war outcomes. I show that the regimes with lower levels of contestation were able to generate higher war effort, more prone to initiate conflicts and they won wars or forced their opponents to capitulate, whereas the leaders operating under competitive regimes were relatively limited in their war effort generation and timid in conflict initiation behavior as well as in resolve and fragile throughout the war. The section on the Schleswig-Holstein War shows how the inclusiveness dimension in the Danish political system, with the most inclusive system in Europe by the time, led to a similar outcome during the Schleswig-Holstein war.

Finally, **Conclusion** (Chapter VII) summarizes the main conclusions of the research and presents both theoretical and empirical implications of the theory for the IR scholarship, points to the fruitful avenues for future scholarly research in international security, comparative politics and international political economy and addresses the implications of the study for policy-makers.

## **Chapter 2**

# **THE OPPORTUNITY-WILLINGNESS THEORY OF CONFLICT PROCESSES**

### **2.1 INTRODUCTION**

THE STATE'S NEED TO MOBILIZE the instruments of coercion to defend its territorial integrity and its unitary interests beyond its borders have developed in tandem with the opportunities and incentives available to those who hold the executive office and those who hold these agents accountable for their actions. These agents are not only under pressure of international challenges, they also face challenges to their tenure from the within on a periodic basis. International threats are eliminated with a war or peaceful negotiation under the shadow of a threat of war. Similarly, domestic threats are eliminated by repression or a negotiation through redistributive politics with the key elements of the regime or power-sharing. These threats can come from either the winning

coalition in the form of elite defection or from the masses in the form of protests or revolutionary upheavals. Both domestic and international threats are related to the beliefs of actors on the optimality of status quo configuration of an issue under dispute: the international competition is caused by the belief of actors on suboptimal division of a territory and the domestic discontent is caused by the belief of actors on suboptimal redistribution or power-sharing. Hence, depending on the magnitude of competition pressing from inside and outside, leaders' optimization problem is centered on where two spheres intersect: fiscal policy.

Leaders need to counteract domestic and international competition, however, the difficulty for them is balancing the two and finding a way to limit the domestic politics or foreign policy expenditures in a way that ensures a favorable outcome outside and stability of the leaders' tenure inside. This is best of the both worlds, however, not every leader can achieve this objective: efforts to contain the international challenges may diminish the ability of the leader to maintain her support base by using the resources for a war effort that might otherwise be channeled to short-term consumption oriented strategies such as financial rewards and privileges. As a result, given resource constraints, a leader can contain the international challenges only under certain conditions: Either the coalition of the leader is exogenously and/or endogenously interested in a successful delivery of a foreign policy good over domestic goods and/or the leader can achieve to contain the international threat with resources she can keep under her discretion – either accumulated over time or the current budget share she need not distribute. How do domestic political institutions affect these two preconditions?

This study represents one attempt to address the theoretical silence by proposing a strategy for exploring the relationship between war preparation strategies of leaders and the effect of these strategies on other states' behaviors. Three more specific questions are asked in this study:

1. How do the dimensions of democracy interact with leader's reselection motives and shape their willingness and opportunity to devote material resources for military build-up given the bargaining efforts fail?
2. How do the resultant willingness and opportunity translate into war outcome? How do the dimensions of polyarchy drive war-winning probability of states?
3. Given their role in willingness and the range of opportunities available to leaders to devote scarce material efforts in war, do inclusiveness and contestation dimensions shape change-seeking behavior of states and do these very same features deter an attack from another state and/or prevent escalatory behavior of the opponents? How are these two dimensions

related to inter-polity peace?

I explore these questions by constructing a conceptual framework for investigating government's war preparation strategies and related to this, the deterrence success given a conflict and the victory propensity of states given a full-fledged war. Given these three questions, the democratic peace research program offers the empirical record regarding:

1. The tendency of some democracies not to fight one another (e.g. Maoz and Russett, 1993; Russett, 1994).
2. The tendency of some democracies not to be targeted (e.g. Reiter and Stam, 1998).
3. The tendency of some democracies not to face war-escalatory behavior from other states (e.g. Fearon, 1994).
4. The tendency of some democracies to have higher war effort than some democracies and non-democracies (e.g. Lake, 1992; Schultz and Weingast, 1998; Bueno de Mesquita et al., 1999).
5. The tendency of some democracies to win the wars they become involved (e.g. Lake, 1992; Reiter and Stam, 2003a).
6. The tendency of some autocracies not to fight one another (e.g. Peceny, Beer and Sanchez-Terry, 2002; Bennet, 2006).
7. The tendency of some autocracies not to be targeted (e.g. Rousseau et al., 1996).
8. The tendency of some autocracies not to face war-escalatory behavior from other states (e.g. Weeks, 2008).
9. The tendency of some autocracies to have higher war effort than some democracies and non-democracies (e.g. Carter and Palmer, 2014).
10. The tendency of some autocracies to win the wars they become involved (e.g. Tocqueville, 2010; Beckley, 2010; Reiter, Stam and Downes, 2009).

Associated with these empirical regularities, the predictions of the conceptual model I present below can be summarized as follows: inclusiveness feature of a polity explains the *Arsenal of Democracy* phenomenon – the proposition that democracies outspend their opponents during an

interstate dispute – the contestation feature explains the *Arsenal of Autocracy* and relabels the phenomenon that autocracies can outspend their enemies as the *War Chest of Autocracy*. The model also shows that contestation and inclusiveness features of democracy pull war-winning probabilities of states to the opposite directions: whereas the relatively less competitive polities are more likely to win the wars they become involved and address the insights of the pessimists and explain autocratic triumphalism, inclusiveness dimension pull the war-winning propensity upward and give us insights on why democracies also win wars they become involved. Hence the model allows us to explain *Autocratic Triumphalism* and *Democratic Triumphalism* simultaneously. Given these two implications of the model, the theory also predicts that who initiates against whom and who is less likely to be targeted. Whereas inclusiveness of a polity drives *Democratic Deterrence*, uncompetitiveness drives *Autocratic Deterrence*. Moreover, a similar amount of increase in uncompetitiveness leads to an increase in war spending while keeping the probability of winning the same. As a result, simultaneous increase in this parameter leads to an overall decrease in war utilities of both parties because fighting becomes more and more expensive compared to the reward. In a similar logic, a similar increase in inclusiveness also leads to an increase in war expenditures while keeping the probability of winning the same. Hence, simultaneous increase in this parameter leads to an overall decrease in war utilities of both parties because fighting becomes more and more expensive compared to the reward. As a result, the theory explains *Democratic Peace* and *Autocratic Peace* simultaneously.

### **2.1.1 Basic Assumptions**

A fundamental tenet of my theory is the assumption that leaders want to stay in power today and engage in activities to promote their office today and they consider the implications of their actions on their future survival. In doing so, leaders once they feel secure today engage in activities to insure their office tomorrow because they are uncertain about the future negative shocks that may destabilize their hold on to power. This negative shocks can take the form of economic crises or foreign policy crises to name a few and can affect directly the welfare of the key supporters of the leader in the first place and/or leave the overall national security vulnerable against international rivals. Since this is a theory of conflict processes, I isolate the model from economic crises and focus on how bargaining between two parties take place and what happens during a bargaining failure.

I also assume that leaders and their supporters prefer more to less. They basically prefer a foreign policy success over a suboptimal bargaining outcome and defeat. They also value possessing

larger amounts of money than smaller amounts. As a result, leaders and supporters derive utility from both a foreign policy good and a domestic good. I assume that the leader and the supporters' utility functions are subject to a diminishing marginal returns: Additional delivery of each unit in either good first increases the marginal utility of relevant actors at an increasing rate. After a certain point, additional increments increase marginal utility at a decreasing rate. Leaders in each state can weigh office-holding differently in their calculations and other relevant actors in each state can weigh foreign policy goods and domestic goods differently. These weights are exogenous in the model. Leaders' optimization problem is subject to a budget constraint and they cannot overspend.

To model the bargaining process, I assume complete information between two parties. Parties' valuation of the issue under dispute and the costs associated with a potential war are common knowledge. The common rationalist explanations (e.g. Fearon, 1995) in the literature explain war as a result of private information and incentives to misrepresent it. I present a theory of bargaining where peace and war are equilibria under a complete information scenario.

## 2.2 THEORY

What exactly did Machiavelli have in mind when he referred to republics and to dictatorships in his maxims for greatness for both orders? Machiavelli did not see the two modes as a variation on one dimension as his causal stories would relate very opposite extremes -republics and authoritarian regimes - with greater ability to finance a war. In this study, I argue that the military effectiveness in Machiavelli's monarchies/dictatorships is delimited by the extent to which the nobles had a credible outside option – enhanced by lack thereof – which hinders leader's ability to accumulate resources for victory given a war and in republics reinforced by the size of the coalition that keeps the leader accountable, which forces leaders to provide the public good of war to appease everyone in the coalition. In a Dahlian (1971) perspective, the former referred to *Contestation* feature of polyarchy and the latter to *Inclusiveness*. Four decades ago, Dahl (1971) defined his polyarchy as the existence of eight institutional guarantees (freedom of organization, freedom of expression, the right to vote, broad eligibility for public office, the right to compete for support and votes, the availability of alternative sources of information, free and fair elections, and the dependence of public policies on citizens' preferences) that correspond to two basic concepts - contestation (opposition) and inclusiveness (participation): Inclusiveness refers to proportion of the population in the polity with an “unimpaired ability” of participation



Table 2.1: DAHL'S (1971) INCLUSIVENESS, CONTESTATION AND IDEAL TYPES

		CONTESTATION	
		Low	High
INCLUSIVENESS	Low	CLOSED HEGEMONS	COMPETITIVE OLIGARCHIES
	High	INCLUSIVE HEGEMONS	POLYARCHY

in “controlling and contesting the conduct of government”. Contestation refers to the extent to which citizens have a credible outside option if their interests are not well-served by their governments. Following Dahl (1971), I conceptualize regime type as a function of two dimensions: contestation and inclusiveness. Based on these two dimensions, Dahl created a typology that mutually exhausts four ideal-types. First is the closed hegemony that do not allow contestation and the right to select the leader to an important proportion of citizens. For example, Saudi Arabia, North Korea, Syria, Nigeria belong to this category. The second is the inclusive hegemony that encourage mass participation for selection of the government without allowing for unimpaired ability to contest the government. For example, Iran, Iraq, Kazakhstan, Pakistan, Belarus fall into this category. The third is the competitive oligarchies that have a high degree of contestation but with a very low levels of participation. For example, US and most European monarchies in 19th century, Denmark in early 20th century, Ecuador and Egypt until the end of the WWII belong to this category. The final type is polyarchy that have both a high levels of competition and participation in selecting a leader. We can consider today’s Australia, Belgium, Sweden, Norway within this category. Hence, as multidimensional concepts, democracy and autocracy are respectively categorized as polyarchy and closed hegemony based on inclusiveness and contestation. The analytic and empirical disaggregation of political regimes into its dimensions and the corresponding four ideal types allow us to move a step further to corroborate a number of seemingly contradictory insights and findings in political philosophy as well as political science in addition to new discoveries unidentified in previous studies .

Even though current studies within the war-time defense spending literature (Bueno de Mesquita et al., 1999; Carter and Palmer, 2014) and other studies have underscored the role of

the first dimension – inclusiveness – and explain the variation in conflict processes through a horizontal change in inclusiveness axis, little is known about the effect of a vertical change in contestation axis on defense spending and more importantly, a simultaneous change in both axis. Contestation is particularly important because it is one of the central forces that determines leaders' ex ante chances of retaining their office and affect the extent to which leaders should react to demands of their constituents. Moreover, Dahl (1971, 4) conjecture that “contestation and inclusiveness vary somewhat independently” and therefore these dimensions and their effects should be analytically and empirically distinguished. It is the intent of this model to introduce the role of contestation and show how inclusiveness and contestation interact with one another and shape incentives of leaders in deciding their optimal war spending.

The model assumes that contestation and inclusiveness constitute main institutions under which the leader operates. Hence, the model does not limit its focus on an autocracy-democracy dichotomy and adopts disaggregation of regime type into its two dimensions as the main focus of interest. The study analyzes a political setting with leaders of the two states: Leader A and Leader B. Both leaders need the support of a coalition in order to retain their offices. In inclusive systems, this can be simple majority of citizenry. In exclusive systems, this can take the form of a group comprised of civilian and/or military elites. For instance, the Egyptian government of Gamal Abdel Nasser (1956-1970) relied throughout most of its existence on the support of two key contenders of power: Arab Socialist Union and the military under Abdel al-Hakem Amer. In another case, Argentine government of Leopoldo Galtieri (1981-1982) depended solely on the military under Roberto Viola. Within the model the incumbent leader has the primary motive to keep her job as a leader; a domestic political challenger has the primary motivation to replace the incumbent, the winning coalition desires the highest redistribution possible and can depose the leader depending on domestic political challengers' commitment. The model considers both de jure contestation, an institutional quality as implied by Dahl (1971)'s original framework and de facto contestation as a result of the qualities of the domestic challenger. Both combined, contestation in the model implies the extent to which the key constituents can keep the leader accountable and have a credible outside option.

The leader distributes mainly two goods: foreign policy goods and domestic policy goods. Foreign policy goods can take any form of actions that will promote the international status of the state: this can take the form of negative or positive military, political or economic actions against/with other countries. However, since the current study analyzes leaders in an interstate dispute, I consider victory/defeat and negotiated outcome as the main foreign policy outputs a leader can produce. Domestic policy goods takes the form of direct resource transfers to key

constituents similar to selectorate theory.

When there is no rivalry between Leader  $A$  and Leader  $B$ 's states, each leader bargains with their respective key supporters on the amount of resources that will keep her at office and at same time allow the leader to keep the largest amount of resources in his discretionary budget. Solution of this bargaining model in this instance yields the prediction that the amount of resources kept undistributed by the leader depends on and decreases by *contestation* within the polity and the amount of resources available to their leader – tax-based or external. If the leader does not face a serious domestic deposition risk due to incompetent contestation in an uncompetitive domestic arena  $(1 - \alpha)$ , where  $\alpha \in [0, 1]$  is the reverse of contestation and lower values indicate higher levels of contestation, the members of the winning coalition are not able to credibly threaten to defect to a challenger, hence, leader will increase the amount of resources for her own discretionary use  $\alpha R$  and decrease the amount of resources to such an extent that the winning coalition becomes indifferent between deposing the leader and keeping her. Hence, she distributes resources to winning coalition to the extent that matches the best offer made by the domestic challenger to the winning coalition, which is  $(1 - \alpha)R$ <sup>1</sup>. The desire of the leader to keep her office and the desire of the coalition to receive financial rewards or share power in the highest possible extent is confounded by the fact that there are incentives for the coalition to renege its contract with the leader by supporting a domestic political challenger, if one exists. However, renegeing the contract is risky because the leader can punish defectors by imprisonment, exile or killing. The risks associated with defection depends on the political institutions and can vary from no punishment at all to imprisonment and exile and execution of the defectors. This was the fate of General Amer (imprisoned and executed) in 1968 and Ali Sabri, the leader of Arab Socialist Union, (imprisoned) in 1971 in Egypt, the leader of Arab Socialist Union or the recent imprisonment of the Gülenists in Turkey in 2014. As a result, the risks associated with defection determines the ability of the coalition to keep the leader accountable and the credibility of the deposition threat issued by a coalition member, which in turn determines the extent of the benefits – a more efficient distribution portfolio for the coalition or same portfolio with more resources or both discounted by the risks of defection – that can be credibly committed by the domestic political challenger. This in turn determines the distributive politics of the leader: the leader does not distribute beyond what can credibly be committed by the domestic political challenger and amasses the remaining amount as personal wealth. For instance, Hosni Mubarak is estimated to have amassed \$70 billion over his three decades of power (1981-2011) and Egypt's GDP during the

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<sup>1</sup> Any offer by the leader more than  $(1 - \alpha)R$  is suboptimal because the coalition will be satisfied with the  $(1 - \alpha)R$  anyway.

Arab Spring (2011) was around \$236 billion (“Hosni Mubarak’s ‘Stolen’ \$70 Billion Fortune” 2011). Mohamed Suharto, the President of Indonesia (1967-1998) is alleged to have stolen around 15 to 30 billion dollars during his tenure in a country where gross-domestic product amounted to 95 billion dollars in 1998. In another instance, Ferdinand Marcos, the President of Philippines (1972-1986) is thought to have amassed around 5 to 10 billion dollars throughout his tenure (Global Corruption Report 2004). As a result, to go back to the mechanics of the theory,  $(1 - \alpha)$  is the fraction of resources consumed for policy goods immediately by the leader in each year to keep the winning coalition satisfied. The leader in each period saves and stockpiles the portion she does not distribute ( $\alpha$ ). Even though a leader operating in an uncompetitive domestic arena may feel secure during zero shock years, she is uncertain about future external negative shocks that will negatively affect the distributed amount for policy goods, hence, will increase the risk of losing office for the leader. As a result, the leader saves  $\alpha R$  resources each period and accumulates it over time as insurance. In the beginning of year  $n$ , the leader accumulates  $(n - 1)\alpha R$  resources in her discretionary budget<sup>2</sup>. Leaders employ discretionization policy for four reasons:

First, it is simply not interesting for the leader to give to the coalition not anything more than a domestic political challenger credibly promise as the coalition cannot ask for more.

Second, generosity on the part of the leader strengthens the coalition members in the long-run and lead them to renege the contract when they are stronger, which leaves the leader vulnerable to domestic political challenges in the future. Since the leader cannot credibly commit to continue to satisfy the coalition in the same extent or not to decrease the amount of resources that she distributes as financial rewards should she become more powerful, the generosity of the leader offers the coalition the very means to renege the contract in the future. As a result, leaders have strong incentives to avoid distributing any direct financial reward more than “efficiency wages” to the coalition for their support of the regime. Leaders divert from this action only under certain conditions where leader needs to balance one important group with another and this very action creates further problems. For instance, Nasser’s creation of Arab Socialist Union was based on three regime stabilization objectives: to thwart class conflict, to create a power center to balance the military and to mobilize the previously untapped segments of the society. This attempt of containing the potential threat of the military created an exactly opposite unintended

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<sup>2</sup> The amount of discretionary resources are common knowledge to winning coalition and international rivals. Even though this assumption is a strong one, it is without loss of generality. Under incomplete information and during a war scenario, leaders with larger discretionary budgets can signal that they are tougher than their opponents with a separating equilibrium. Since the focus here is on leaders’ ability to extract resources from their own polities and their subsequent effects, I assume a complete information scenario to isolate main causal mechanisms of the theory from those of existing theories and simplicity.

consequence. Strengthened by Nasser through resource and power-sharing, ASU under Ali Sabri, became a center of power on its own and with the demise of the military's chief role in the regime, ASU alone rivaled the regime, which necessitated yet another survival maneuver by Nasser and Sadat later on (Ryan, 2001).

Third, in a similar logic, discretionary resources of the leader in the long-run strengthen the position of the leader vis-à-vis the coalition members and allow her to renege the contract to gain a higher level of autonomy when she is strong enough to jettison the coalition or change their positions in the regime from pivotal allies into administrators who are fully subservient to the state. This shift allows leaders to change the system from the politics of *primus inter pares* to an uncontested one-man rule (Svolik, 2012). In early periods of his tenure, Vladimir Putin was determined to bring to heel those groups whose resources were large enough to allow them to resist Putin and his policies, the most notable being the oligarchs of the Yeltsin era. Not had consolidated the power yet, in May 2001, Putin promised the oligarchs that the government would not intervene in the business of the oligarchs under the condition that oligarchs would not interfere with politics (Kryshtanovskaya, 2009). However, steep increases in the gas and oil prices brought about the elimination of the political influence of the oligarchs through exile and imprisonment (Duncan, 2007) and the creation of alternative centers of power loyal to the government through a giant patronage machine. By 2008, Putin under Russia transitioned into a fully authoritarian state with no alternative opposition and with a selectorate consisted of one person – himself – as in much of Stalin's Soviet Union (Zimmerman 2014, Chapter 8).

Fourth, the leader is unsure of future external negative shocks that may destabilize her rule, hence, she needs to amass personal wealth as a form of insurance to counteract them and be ready if a shock arrives. For example, Arab Spring was such a shock Qaddafi was trying to contain: the Libyan leader, during his 42 years of tenure, discretionized a budget of \$200 billion in bank accounts, real estate and corporate investments around the world before he was killed, about \$30,000 for every Libyan citizen. In addition to these reserves in international outlets, he is believed to have amassed billions of dollars in gold in Libya, for use in case his rule was threatened. During the domestic riots, Qaddafi and his clique brought some of those cash back to Tripoli to help pay for their war effort. Secretary of the State at the time, Hillary Clinton, indicated that the money is used to recruit mercenaries, paying with the gold he accumulated over his tenure (Richter, 2011). There is also evidence that he paid mercenaries and Al-Qaeda elements around \$1000-2000 a day to fight against the rebels and those mercenaries not only came from Africa but also from Europe, more specifically, Serbia and Belarus.

To, go back to the mechanics of the theory, after this peace period, an interstate dispute comes

into the picture as an exogenous shock. In this case, there is a dispute on a divisible issue such as a territory between the two states. At this stage, to remain in office, the incumbent has two tasks: both to meet the best offer credibly committed by a political challenger  $(1 - \alpha)R$  and to allocate resources optimally between armament, domestic goods and discretionary budget for future use. A Generic Coalition ( $C$ ) has a Cobb-douglass utility over foreign policy goods and domestic goods as follows<sup>3</sup>:

$$U_C(z, p) = \beta \log(z) + (1 - \beta) \log\left(\frac{p}{W} + \mu\right) \quad (2.1)$$

where  $\beta \in [0, 1]$  is the weight coalition assigns to foreign policy outcome and  $(1 - \beta)$  is the weight coalition assigns to domestic goods,  $z$  is the pay-off from the international outcome for all members of the state  $i$  including the supporters for the international policy outcome  $z$ . If parties negotiate,  $A$  gives  $\chi$  from the total value of the issue under dispute ( $v$ ) to  $B$  and in this case  $z$  becomes  $z_A = v - \chi$  for state  $A$ ,  $z_B = \chi$  for state  $B$ . If parties fight, then  $z_A = v^\pi l^{(1-\pi)}$  for state  $A$ ,  $z_B = v^{(1-\pi)} l^\pi$  for state  $B$ , where  $v$  is the value of acquiring the issue under dispute and  $l$  is the value of losing the issue under dispute and I normalize  $l$  to 1.  $\pi$  is  $A$ 's winning probability is increasing in its military expenditure ( $g_A$ ) and decreasing in the opponent's military expenditure ( $g_B$ ) and it is represented with a linearized contest success function (Che and Gale, 2000) as follows:

$$\pi = \text{Max} \left[ 0, \text{Min} \left[ 1, \frac{1}{2} + \Omega (g_A - g_B) \right] \right] \quad (2.2)$$

$p$  in the latter term in Equation 2.1 is leaders spending on private goods,  $W$  is the size of the winning coalition and  $\mu \in [0, 1]$  is the competence of the leader in domestic politics. The incumbent has the following Cobb-Douglass utility over reselection and personal wealth maximization as follows:

$$U_L(z, S, p) = S^{1-\Psi} U_C(z, p)^\Psi \quad (2.3)$$

<sup>3</sup> One central axiom of the study is that a leader's office-driven actions should be viewed as a bundle of policies. Leaders create their policy portfolios to achieve the things they want given existing constraints. Since the leader has a bundle of options to allocate money – between foreign policy goods, domestic policy goods, I use Cobb-Douglass representation as the main functional form for its simplicity. Cobb-Douglass representation has various attractive properties. It ensures that the variables in equilibrium maximize leader's utility as presented in the technical appendix of this chapter. The marginal effect of domestic goods to leaders' survival function is proportional to the amount of domestic goods distributed by the leader. Similarly, the marginal contribution of foreign policy to the survival function good is proportional to the the amount of foreign policy goods achieved by the leader. Lastly, the marginal contribution of discretionary resources is proportional to the amount of money kept by the leader. The monotonic transformation of the Cobb-douglass representation by natural logarithm allows us to account for a diminishing return effect i.e. leaders receives less utility if they spend resources only for domestic goods given an exogenous weight the coalition assigns for receiving domestic goods.

where  $S$  is the amount of resources leader keeps under her discretion,  $\Psi \in [0, 1]$  is the weight incumbent places on office holding and  $(1 - \Psi)$  is the weight incumbent leader places upon her discretionary resources. The domestic political challenger can credibly commit as much as  $(1 - \alpha)(R)$  resources to the coalition. As a result, the net benefit the winning coalition receives from the leader is effectively  $R + (n - 1)\alpha R - (1 - \alpha)R = n\alpha R$ . Hence, the threshold budget constraint of the leader becomes:

$$n\alpha R = g + p + S \quad (2.4)$$

This budget constraint indicates that the winning coalition's net benefit for retaining the leader increases as  $n\alpha R$  increases and as  $S$  decreases.

### 2.2.1 Timing of The Game

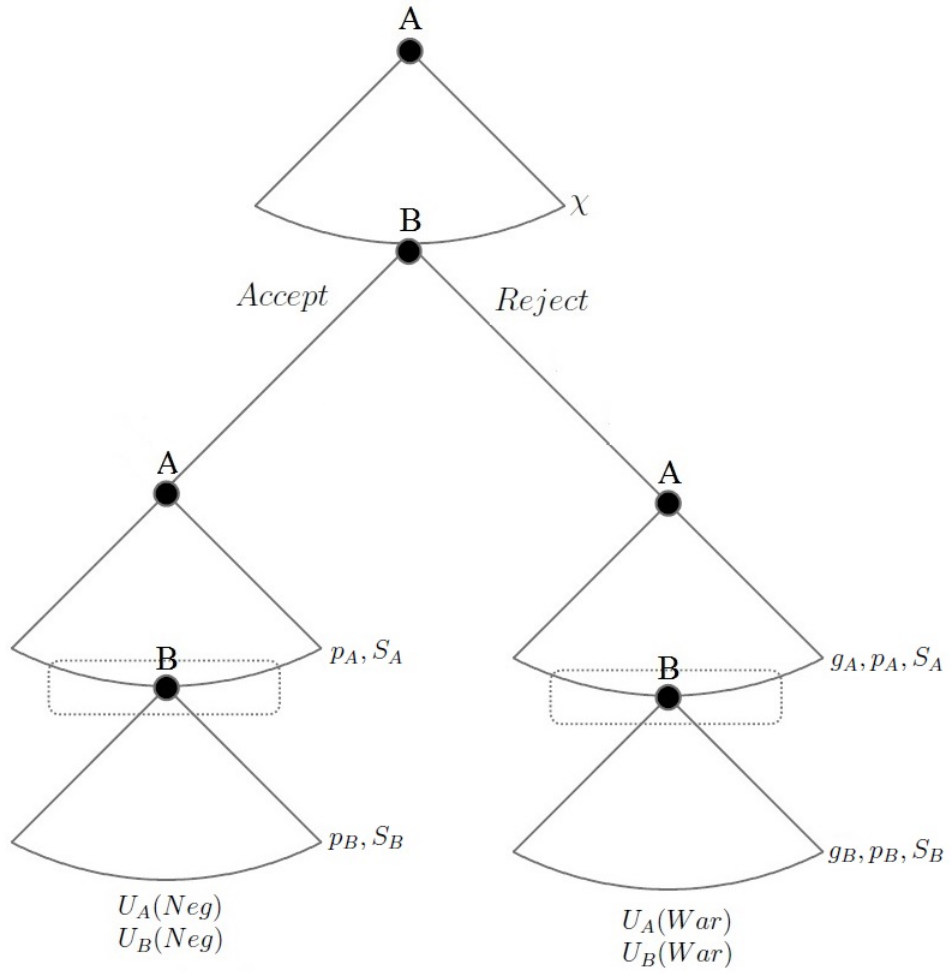
As depicted at Figure 2.1, the game proceeds as follows :

1. There is a dispute on a divisible issue such as territory between state  $A$  and state  $B$ . The leader of state  $A$  proposes an offer  $\chi$  to state  $B$ .
2.  $B$  can either accept the offer or reject it. If  $B$  accepts the offer,
  - (a)  $A$  receives a pay-off  $v - \chi$  and  $B$  receives  $\chi$  and the dispute is resolved peacefully.
  - (b)  $A$  and  $B$  simultaneously decide on the amount of resources to distribute to the coalition in the form of private goods  $p_A$  and  $p_B$  as well as discretionary resources for future use  $S_A$  and  $S_B$ .
3. If  $B$  rejects the offer, both parties go to war
  - (a)  $A$  and  $B$  simultaneously starts military build-up and decides on a military expenditure level  $g_A$  and  $g_B$ , the amount of resources to distribute to the coalition in the form of private goods  $p_A$  and  $p_B$  as well as discretionary resources for future use  $S_A$  and  $S_B$ .
4. Winner takes  $v$  and the loser gets  $l$ .

### 2.2.2 Equilibrium

I solve for a sub-game-perfect equilibrium. The solution is fairly simple: We walk up the game tree. The coalition does not replace its ruler if and only if the leader is able to sustain the coalitions threshold budget as shown above.

Figure 2.1: GAME TREE





Given a war and a generic utility function of the leader (Eq. 2.3) and given  $z_A = v^\pi l^{(1-\pi)}$  for state  $A$ ,  $z_B = v^{(1-\pi)} l^\pi$  for state  $B$  and  $\pi = \text{Max} [0, \text{Min} [1, \frac{1}{2} + \Omega (g_A - g_B)]]$ . Leader  $A$ 's pay-off given a war is

$$U_{LA}(g_A, S_A, p_A | WAR) = (1 - \Psi_A) \log(S_A) + \Psi_A \left[ \beta_A \log(v^\pi l^{(1-\pi)}) + (1 - \beta_A) \log\left(\frac{p_A}{W_A} + \mu_A\right) \right] \quad (2.5)$$

and this is subject to a budget constraint

$$n_A \alpha_A R_A = S_A + g_A + p_A \quad (2.6)$$

Leader  $B$ 's pay-off is

$$U_{LB}(g_B, S_B, p_B | WAR) = (1 - \Psi_B) \log(S_B) + \Psi_B \left[ \beta_B \log(v^{(1-\pi)} l^\pi) + (1 - \beta_B) \log\left(\frac{p_B}{W_B} + \mu_B\right) \right] \quad (2.7)$$

and this is subject to a budget constraint

$$n_B \alpha_B R_B = S_B + g_B + p_B \quad (2.8)$$

Two states simultaneously militarize and they do not see each other's spending decision. Given the optimization is constrained, Leader  $A$  and Leader  $B$  solve the following optimization problems simultaneously:

$$\mathcal{L}_A(g_A, S_A, p_A, \lambda_A) = U_{LA}(g_A, S_A, p_A | WAR) + \lambda_A (n_A \alpha_A R_A - S_A - g_A - p_A) \quad (2.9)$$

$$\mathcal{L}_B(g_B, S_B, p_B, \lambda_B) = U_{LB}(g_B, S_B, p_B | WAR) + \lambda_B (n_B \alpha_B R_B - S_B - g_B - p_B) \quad (2.10)$$

**Proposition 2.1. (Endogenous Militarization Capacity):** *The optimal defense spending for both countries are given by:*

$$g_A^* = n_A \alpha_A R_A + W_A \mu_A - \frac{1 - \beta_A \Psi_A}{\Omega \beta_A \Psi_A \log(v)} \quad (2.11)$$

$$g_B^* = n_B \alpha_B R_B + W_B \mu_B - \frac{1 - \beta_B \Psi_B}{\Omega \beta_B \Psi_B \log(v)} \quad (2.12)$$

optimal domestic good spending is given by

$$p_A^* = -W_A \mu_A + \frac{1 - \beta_A}{\Omega \beta_A \log(v)} \quad (2.13)$$

$$p_B^* = -W_B \mu_B + \frac{1 - \beta_B}{\Omega \beta_B \log(v)} \quad (2.14)$$

optimal allocation to discretionary resources is given by

$$S_A^* = \frac{1 - \Psi_A}{\Omega \beta_A \Psi_A \log(v)} \quad (2.15)$$

$$S_B^* = \frac{1 - \Psi_B}{\Omega \beta_B \Psi_B \log(v)} \quad (2.16)$$

Lagrange multiplier is given by

$$\lambda_A^* = \Omega \beta_A \Psi_A \log(v) \quad (2.17)$$

$$\lambda_B^* = \Omega \beta_B \Psi_B \log(v) \quad (2.18)$$

*Proof.* See Appendix □

Now we know both leaders optimal military expenditure decision and other allocation decisions. How does this militarization capacity shape states' propensity to win wars? Since the probability of victory is increasing in a state's military expenditure and decreasing in the opponent's expenditures, we can straightforwardly derive the  $\pi(g_A^*, g_B^*)$  as follows:

$$\pi(g_A^*, g_B^*) = \text{Max} \left[ 0, \text{Min} \left[ 1, \frac{1}{2} + \Omega (g_A^* - g_B^*) \right] \right] \quad (2.19)$$

**Proposition 2.2. (Endogenous Winning Probability):** *The probability that state  $i$  wins given the optimal war spending is given by*

$$\pi(g_A^*, g_B^*) = \frac{1}{2} + \Omega (n_i \alpha_i R_i + W_i \mu_i - n_j \alpha_j R_j - W_j \mu_j) - \frac{\frac{1}{\beta_i \Psi_i} - \frac{1}{\beta_j \Psi_j}}{\log(v)} \quad (2.20)$$

*Proof.* See Appendix □

How does this militarization capacity and the latent military advantage shape state's deterrent capacity? Leaders should be more likely to solve their disputes with negotiation if they anticipate that their opponents are more likely to increase their military build-up, hence, decrease the chances of winning for the opponent. As a result, if the opponent has a high latent military capacity, targets should avoid escalatory behavior that result in war and potential initiators should avoid an initiation to begin with. In the model, I provide these insights by allowing leader  $B$  to choose between accepting and rejecting the take-it or leave-it offer made by  $A$ , which I denote as  $\chi$  and evaluate the difference between two.

More formally, I now we go up in the game tree and see the conditions for  $B$  to accept the offer  $\chi$  proposed by  $A$ .  $B$  plays a cut-off strategy.  $B$ 's pay-off from rejecting the offer is given by  $U_{LB}(g_B^*, S_B^*, p_B^* | WAR)$  and we get this by substituting  $g_B^*, S_B^*, p_B^*, \lambda_B^*$  into Eq. 2.7.  $B$ 's pay-off from accepting the negotiation offer  $\chi$  is given by

$$U_{LB}(\chi, S_B, p_B | Accept) = (1 - \Psi_B) \log(S_B^{Neg}) + \Psi_B \left[ \beta_B \log(\chi) + (1 - \beta_B) \log\left(\frac{p_B^{Neg}}{W_B} + \mu_B\right) \right] \quad (2.21)$$

and this is subject to a budget constraint

$$n_B \alpha_B R_B = S_B^{Neg} + p_B^{Neg} \quad (2.22)$$

First order condition implies

$$p_B^{*Neg} = \frac{n_B \alpha_B R_B (1 - \beta_B) \Psi_B - W_B \mu_B (1 - \Psi)}{1 - \Psi_B \beta_B} \quad (2.23)$$

$$S_B^{*Neg} = n_B \alpha_B R_B - \frac{n_B \alpha_B R_B (1 - \beta_B) \Psi_B - W_B \mu_B (1 - \Psi)}{1 - \Psi_B \beta_B} \quad (2.24)$$

As a result,  $B$  compares  $U_{LB}(\chi, S_B^{*Neg}, p_B^{*Neg} | Accept)$  against  $U_{LB}(g_B^*, S_B^*, p_B^* | WAR)$ . The difference between the anticipated militarization capacity of A and B generates a deterrence effect as follows:

**Proposition 2.3. (Deterrence):**  $B$  accepts the offer made by  $A$  if

$$U_{LB}(\chi, S_B^{*Neg}, p_B^{*Neg} | Accept) \geq \mathbb{E} [U_{LB}(g_B^*, S_B^*, p_B^* | WAR)] \quad (2.25)$$

Given this condition, walking up the game tree, A makes an offer  $\chi$  that will make B and herself indifferent between negotiation and war. So given the implications of the model on deterrence, how does A manipulate B's decision? Given A knows that B will not fight if B cannot profit from fighting, Leader A will propose Leader B an optimal offer that will make B indifferent between fighting and negotiation. Since A knows that B's utility from fighting decreases when A has a larger deterrent capacity, A will take this into account and decrease the offer size. If B has a larger deterrent capacity, then A will increase the size of the offer accordingly. Hence, A's optimal offer is derived as follows:

**Proposition 2.4. (Optimal Offer Size):** *The optimal size of the offer made by A that makes B indifferent between accepting and rejecting is given by:*

$$\chi^* = v^{1-\pi_A^*} \left( \frac{1 - \Psi_B \beta_B}{\beta_B \Psi_B (n_B \alpha_B R_B + W_B \mu_B) \Omega \log(v)} \right)^{\frac{1-\Psi_B \beta_B}{\Psi_B \beta_B}} \quad (2.26)$$

*The optimal size of the offer made by A that makes A's herself indifferent between war and negotiations is given by:*

$$U_{LA}(\chi, S_A^{*Neg}, p_A^{*Neg} | Accept) \geq \mathbb{E} [U_{LA}(g_A^*, S_A^*, p_A^* | WAR)] \quad (2.27)$$

$$\chi_A^\bullet = v - v^{\pi_A^*} \left( \frac{1 - \Psi_A \beta_A}{\beta_A \Psi_A (n_A \alpha_A R_A + W_A \mu_A) \Omega \log(v)} \right)^{\frac{1-\Psi_A \beta_A}{\Psi_A \beta_A}} \quad (2.28)$$

A sends an unacceptable offer if  $\chi^* > \chi_A^\bullet$  and war happens when  $\frac{\chi^*}{\chi_A^\bullet} > 1$  as follows:

$$\begin{aligned} \frac{v^{1-\pi_A^*} \left( \frac{1 - \Psi_B \beta_B}{\beta_B \Psi_B (n_B \alpha_B R_B + W_B \mu_B) \Omega \log(v)} \right)^{\frac{1-\Psi_B \beta_B}{\Psi_B \beta_B}}}{v - v^{\pi_A^*} \left( \frac{1 - \Psi_A \beta_A}{\beta_A \Psi_A (n_A \alpha_A R_A + W_A \mu_A) \Omega \log(v)} \right)^{\frac{1-\Psi_A \beta_A}{\Psi_A \beta_A}}} &> 1 \quad \text{War} \\ &\leq 1 \quad \text{Negotiation} \end{aligned} \quad (2.29)$$

*Proof.* See Appendix □

Now we can derive the subgame perfect Nash equilibrium of the game.

**Proposition 2.5. (War and Peace in Equilibrium):** *Subgame perfect Nash equilibrium of the game is as follows: A chooses  $\chi^*$  that makes B indifferent between negotiation and war if  $\frac{\chi^*}{\chi_A^\bullet} \leq 1$ . A chooses to make an unacceptable offer  $[0, \chi_A^\bullet]$  if  $\frac{\chi^*}{\chi_A^\bullet} > 1$  and both parties go to war and each*

party spends  $g_i^* = n_i\alpha_i R_i + W_i\mu_i - \frac{1-\beta_i\Psi_i}{\Omega\beta_i \log(v)}$  for military expenditure and win with a probability of  $\pi_i(g_i^*, g_j^*) = \frac{1}{2} + \Omega(n_i\alpha_i R_i + W_i\mu_i - n_j\alpha_j R_j - W_j\mu_j) - \frac{\frac{1}{\beta_i\Psi_i} - \frac{1}{\beta_j\Psi_j}}{\log(v)}$ . A chooses to make the acceptable offer  $\chi^*$  if  $\frac{\chi^*}{\chi_A^*} \leq 1$  and the issue resolved by negotiation.

## 2.2.3 Comparative Statics Analysis

### 2.2.3.1 Military Expenditure

Analysis of Proposition 2.1 indicates that a decrease in the level of contestation implies a higher level of optimal war spending. Given this Corollary, it is hypothesized as:

**Hp1:** *Decreases in the level of contestation in a polity increases military expenditure.*

This comparative statics prediction is diametrically opposed to Goldsmith (2007)'s argument that competition within a polity increases the optimal amount of war spending. Five hundred years ago, Niccolò B. Machiavelli (1988, 35) in his *Prince* gave advice to those who come to power through the favor of nobles. Machiavelli (1988, 35) in his *Prince* reminds us, autocratic leaders, if they want to be around longer, they should be able to fight better. Machiavelli (1988, 35), however, adds “the nobles cannot be satisfied without injuring [people]” and hints at the incompatibility of nobles’ interest in financing such a war and the limited ability of the leader to generate enough funds in the face of such a hardship. As the philosopher of *virtu*, Machiavelli gives additional tips to his Prince Lorenzo de Medici to reverse this problem: “Those rulers who have achieved great things ... have all been considered mean (parsimonious); all the others have failed (Machiavelli, 1988, 56). Machiavelli continues: “because of [their] parsimony, [their] revenues are sufficient enough to defend [themselves] against any enemies that attack [them]” and to undertake military campaigns successfully and he gives examples of Pope Julius II, the then King of France Louis XII and the King of Spain Ferdinand. Confirming the timeless advice of Machiavelli, the theory here reveals and integrates a centuries-old causal mechanism to our understanding of the nexus between the dimensions of a polity and the logistics of warfare. Depending on the amount of competition within the polity, number of years of the tenure of the leader and the amount of resources at hand, leaders confidently create an opportunity to fund a war effort even though the coalition’s initial incentives to fund is against such an endeavor.

Analysis of Proposition 2.1 indicates that the coalition size and war effort go hand in hand (Bueno de Mesquita et al., 1999). Given this Proposition 2.1, it is hypothesized as:

**Hp2:** *Increases in the level of inclusiveness in a polity increases military expenditure.*

Table 2.2: THE EFFECT OF PARAMETERS ON EQUILIBRIUM OUTCOMES

PARAMETERS/VARIABLES		MILITARY EXPENDITURE <sub>A</sub>	MILITARY EXPENDITURE <sub>B</sub>	PR VICTORY <sub>A</sub>	PR VICTORY <sub>B</sub>	WILLINGNESS TO FIGHT <sub>A</sub>	WILLINGNESS TO FIGHT <sub>B</sub>	OFFER MAKES B INDIFFERENT	OFFER MAKES A INDIFFERENT
		$g_A^*$	$g_B^*$	$\pi_A^*$	$1 - \pi_A^*$	$U_A^{*WAR} - U_A^{NEG.}$	$U_B^{*WAR} - U_B^{NEG.}$	$\chi^*$	$\chi_A^*$
<b>LEADER A</b>									
<i>Inclusiveness<sub>A</sub></i>	$W_A$	↑	—	↑	↓	↑	↓	↓	±
<i>Uncompetitiveness<sub>A</sub></i>	$\alpha_A$	↑	—	↑	↓	↑	↓	↓	±
<i>Tax-Resources<sub>A</sub></i>	$R_A$	↑	—	↑	↓	↑	↓	↓	±
<i>Leader Competence<sub>A</sub></i>	$\mu_A$	↑	—	↑	↓	↑	↓	↓	±
<i>Tenure Spell<sub>A</sub></i>	$n_A$	↑	—	↑	↓	↑	↓	↓	±
<b>LEADER B</b>									
<i>Inclusiveness<sub>B</sub></i>	$W_B$	—	↑	↓	↑	↓	↑	±	↑
<i>Uncompetitiveness<sub>B</sub></i>	$\alpha_B$	—	↑	↓	↑	↓	↑	±	↑
<i>Tax-Resources<sub>B</sub></i>	$R_B$	—	↑	↓	↑	↓	↑	±	↑
<i>Leader Competence<sub>B</sub></i>	$\mu_B$	—	↑	↓	↑	↓	↑	±	↑
<i>Tenure Spell<sub>B</sub></i>	$n_B$	—	↑	↓	↑	↓	↑	±	↑

NOTES: Cell entries indicate the models predictions for how parameters (in rows) affect important quantities of interest (in columns). ↑ refers to a positive effect, ↓ refers to a negative effect, — refers to no effect and ± refers to nonmonotonic relationship. As an example, the entry ↑ for *Inclusiveness<sub>A</sub>* and MILITARY EXPENDITURE<sub>A</sub> indicates that Inclusiveness of state *A* increases military expenditure of state *A*.

The interesting feature of the model is the prediction that if the leader's domestic political performance was higher in previous years, the optimal amount of war spending caused by coalition size increases. This has the observable implication that the leaders with a large coalition can confidently use the budget share they allocate to winning coalition as direct resource transfers to war effort when the coalition's perception of the leader's performance in other areas of domestic goods provision is higher. This is because the leader remains at power until leader's current domestic policy performance is undone through serious foreign policy failures, hence they can allocate more of their resources for defense spending and at the same time be more confident of their own reselection.

The comparative statics analysis provides various novel insights also on how leader's competence is related to armament decisions. Leader's competence in domestic politics has been a central focus for diversionary war theories (e.g. Coser, 1956; Wilkenfeld, 1968; Morgan and Bickers, 1992). The model predicts that leaders in a large coalition polities are less likely to engage in a diversion motivated war spending and leaders can confidently use the budget share they allocate to winning coalition to war effort when the coalition's perception of the leader's performance is higher. This is because leaders remain at power until leader's current competence perception is undone through serious foreign policy failures, hence they can gamble more risky and at the same time be more confident of their reselection. This novel insight has also been confirmed within the literature for the link between government's popularity and autonomy in foreign policy in the US (George, Hall and Simons, 1971; Blechman et al., 1978; Morgan and Bickers, 1992) and in other democracies (Williams, Brule and Koch 2010 but see Oneal and Tir 2006).

Moreover, the leader allocates more to war effort if the military spending sensitivity of war outcome  $\Omega$  is high and/or coalition assigns foreign policy goods a higher weight  $\beta$  and/or the leader assigns reselection a higher weight  $\Psi$  and/or the value of the disputed issue  $v$  is high for coalition. The model in this way connects to Carter and Palmer (2014): As the weight coalition assigns to domestic goods decreases as a result of preferences of elites in autocracies, that is,  $1 - \beta$  gets smaller, leaders are likely to channelize resources for war spending. Moreover, in relation to Debs and Goemans (2010), the model has implications for the post-tenure fate of leaders if we assume the weight leader assigns reselection  $\Psi$  a larger value, that is, leaders deposition also not only means a loss of office, but may also include exile, jail or regicide depending on the regime type.

### 2.2.3.2 War Outcomes

Given the comparative statics predictions of the model, how does this militarization capacity shape states' propensity to win wars? Anything that increases a leader's incentives to mobilize resources for war effort directly increases its winning probability and decreases her opponent's winning probability. Proposition 2.2 states that *ceteris-paribus*, a state is likely to win the war if the leader's selection institutions are highly uncompetitive and that of the opponent is highly competitive. Hence, it is hypothesized as follows:

*Hp3: Decreases in the level of contestation in a polity increases increases the probability of victory of the state.*

*Hp4: Decreases in the level of contestation in the opponent state decreases the probability of victory of the state.*

The comparative statics predictions on the contestation dimension echoes the insights of Alexis de Tocqueville (2010) in *Democracy in America*. Not only did he see the democratic foreign policy-making "inferior to others", but also pointed to democratic leaders' contested ability to plan and devise a consistent foreign policy strategy as the main obstacle to victory in a war. Momentary passion of the coalition and the leader's insecure position vis-à-vis domestic political challenger as a result of the contestation within the polity and the combined implication of these two on leaders' survival instincts cause them to abandon the optimal long-term plans and prevent generation of the necessary funds to counteract exogenous shocks in the system. Hence, contestation in the model leaves leaders domestically vulnerable and the state internationally under risk of aggression of other states and this consequently decreases military effectiveness of the state once the war starts. The effect of uncompetitiveness on war time military expenditure is amplified if the resources available to each leader increases and/or the leader's tenure has been longer.

On the other hand, inclusiveness dimension works in the opposite direction: An increase in coalition size enhances the leader's winning probability and reduces her opponent's winning probability. Hence, it is hypothesized as follows:

*Hp5: Increases in the level of inclusiveness in a polity increases the probability of victory of the state.*

*Hp6: Increases in the level of inclusiveness in the opponent state decreases the probability of victory of the state.*

This finding corroborates the optimist strand on the regime-type and war-outcome nexus (Bueno de Mesquita et al., 1999) and corroborates *Democratic Triumphalism* phenomenon with



higher war time defense expenditure mechanism. This effect is amplified when the competence of the leader is higher.

The model shows that the pessimist and optimist views are special cases of this theoretical model and we clearly see that the contestation and inclusiveness pull war winning probabilities in the opposite directions: Whereas the relatively less competitive polities are more likely to win the wars they become involved and address the insights of the pessimists and explain *Autocratic Triumphalism*, inclusiveness dimension pull the war-winning probability upward and give us insights on why some democracies also win wars and explain *Democratic Triumphalism*. In addition to this novel aspect of the model, the military spending sensitivity of war outcome  $\Omega$ , coalitions valuation of foreign policy goods  $\beta$  as well as leader's valuation of office-holding  $\Psi$  increases leader's winning probability and decreases her opponent's winning probability.

### 2.2.3.3 Deterrence

Analysis of Proposition 2.3 indicates that when  $A$  has large latent military expenditure capacity and a higher endogenous winning probability,  $B$  has more incentives to accept the offer than reject it as war becomes less profitable for  $B$ . As shown in Proposition 2.1 and 2.2, Proposition 2.3 indicates that  $A$  can outspend and win over  $B$  if  $A$ 's regime is inclusive and/or uncontested and/or  $B$ 's regime is not inclusive and/or not uncontested. This brings us to the two main theoretical positions on resort to violence and regime type nexus within the literature<sup>4</sup>: *Democratic Deterrence* and *Autocratic Deterrence*. The condition for *Autocratic Deterrence* is derived as follows:

**Corollary 2.1. (Autocratic Deterrence):** *Given Proposition 2.3, an increase in Uncompetitiveness ( $\alpha$ ) in state  $A$  decreases the net utility of fighting  $\mathbb{E}[U_{LB}(g_B^*, S_B^*, p_B^* | WAR)] - U_{LB}(\chi, S_B^{*Neg}, p_B^{*Neg} | Accept)$ . As a result, as Uncompetitiveness in state  $A$  increases,  $B$  prefers negotiation over war. Given Proposition 2.4, as Uncompetitiveness in state  $B$  increases,  $A$  prefers to make a larger offer to  $B$  to avoid war.*

The condition for *Democratic Deterrence* is derived as follows:

**Corollary 2.2. (Democratic Deterrence):** *Given Proposition 2.3, an increase in Inclusiveness ( $W$ ) in nation  $A$  decreases the net utility of fighting  $\mathbb{E}[U_{LB}(g_B^*, S_B^*, p_B^* | WAR)] -$*

---

<sup>4</sup> A detailed account of the literature and this model's relationship with three contending approaches - namely, constraint model, informational model and deterrence model - are elaborated in depth below in Chapter 5 (**Selection Institutions and Resort to Violence**).

$U_{LB}(\chi, S_B^{*Neg}, p_B^{*Neg} | Accept)$ . As a result, as Inclusiveness in state A increases, B prefers negotiation over war. Given Proposition 2.4, as Inclusiveness in state B increases, A prefers to make a larger offer to B to avoid war.

These two corollaries show that *Democratic Deterrence* is increasing in inclusiveness and this corroborates the current knowledge (Bueno de Mesquita et al., 1999) and *Autocratic Deterrence* (e.g. Rousseau et al., 1996) is increasing in uncompetitiveness and this is another contribution of this study to the cumulative knowledge.

If the opponent has a high militarization capacity, targets should avoid escalatory behavior that result in war and potential initiators should avoid an initiation to begin with. As a result, since militarization capacity is increasing in inclusiveness and decreasing in contestation, it is hypothesized as:

**Hp 7:** *If a dispute is initiated, a decrease in initiator's contestation level is likely to decrease target's propensity to escalate the dispute to war level.*

**Hp 8:** *If a dispute is initiated, an increase in initiator's inclusiveness level is likely to decrease target's propensity to escalate the dispute to war level.*

Moreover, a dissatisfied state is less likely to engage in a status quo changing behavior if the opponent has a higher militarization capacity. Thus, given militarization capacity is increasing in inclusiveness and decreasing in contestation, it is hypothesized as:

**Hp 9:** *A decrease in targets' contestation level is likely to deter an attack or status quo changing behavior by other nations.*

**Hp 10:** *An increase in targets's inclusiveness level is likely to deter an attack or status quo changing behavior by other nations.*

#### 2.2.3.4 Inter-polity Peace

How does this model inform us about non-directed inter-polity peace? Fighting becomes less profitable as the costs associated with fighting gets larger and the valuation of the issue under dispute gets smaller for parties and vice versa. A simultaneous increase in both parties' defense expenditure increases the financial cost of war, while keeping probability of winning constant. As a result, simultaneous increase in both parties' war expenditures leads to an overall decrease in war utilities of both parties and this makes fighting more and more expensive keeping the value of reward. Hence, the conditions for inter-polity peace are straightforwardly derived as follows.

To show the clear predictions of the model on inter-polity peace, I make two changes now on Equation 2.29.

1. I assign an indifferent value of 0.5 to leader's office holding weight as  $\Psi = 0.5$  and assign an indifferent value of 0.5 to coalitions weight for foreign policy goods as  $\beta = 0.5$ .
2. Moreover, I assume both countries have the same parameter values to show predictions on inter-polity peace.

As a result, we have

$$\frac{\sqrt{v} \left( \frac{3}{(n\alpha R + W\mu)\Omega \log(v)} \right)^3}{v - \sqrt{v} \left( \frac{3}{(n\alpha R + W\mu)\Omega \log(v)} \right)^3} > 1 \quad \text{War} \quad (2.30)$$

$$\frac{\sqrt{v} \left( \frac{3}{(n\alpha R + W\mu)\Omega \log(v)} \right)^3}{v - \sqrt{v} \left( \frac{3}{(n\alpha R + W\mu)\Omega \log(v)} \right)^3} \leq 1 \quad \text{Negotiation}$$

For now, let  $\Gamma$  denote  $\left( \frac{3}{(n\alpha R + W\mu)\Omega \log(v)} \right)^3$

$$\frac{\Gamma}{\sqrt{v} - \Gamma} > 1 \quad \text{War} \quad (2.31)$$

$$\frac{\Gamma}{\sqrt{v} - \Gamma} \leq 1 \quad \text{Negotiation}$$

We observe negotiated settlement if  $\frac{\Gamma}{\sqrt{v} - \Gamma} \leq 1$ , hence,  $\Gamma \leq \frac{\sqrt{v}}{2}$ . Anything that decreases  $\Gamma$  increases the utility of negotiated settlement. Given the vector of parameters  $\{\alpha, R, n, W, \mu\}$  of the model, I now evaluate their effect on  $\Gamma$ . Uncompetitiveness  $\alpha$  decreases  $\Gamma$ , hence, increase in uncompetitiveness in both states increases the utility of negotiation for both parties. We also observe similar effect for inclusiveness ( $W$ ). It decreases  $\Gamma$ , hence, increases the utility of negotiation for both parties. Tax resources ( $R$ ), tenure spell of the leader ( $n$ ), competence of the leader ( $\mu$ ), military expenditure sensitivity of war outcome ( $\Omega$ ) and value of disputed issue ( $v$ ) behave similarly, they decrease  $\Gamma$ , hence increase utility of negotiation. As a result, the model expects a separate peace among uncompetitive regimes and a separate peace among inclusive regimes.

**Corollary 2.3. (Non-Directed Dyadic Peace):** *Same amount of increase in the vector of parameters  $(\alpha_i, R_i, n_i, W_i, \mu_i, \beta_i, \Psi_i)$  for both parties leads to an increase in war spending while keeping the probability of winning the same. As a result, a simultaneous increase in these parameters in both states leads to an overall decrease in war utilities of both parties, because fighting becomes more and more expensive keeping the value of reward constant.*

The observable implication of the corollary is that increases in these parameters will make both parties peaceful if the difference between combination of these domestic political variables

Table 2.3: COMPARATIVE STATICS PREDICTIONS OF THE MODEL: SPNE AS WAR AND PEACE

PARAMETERS/SPNE	WAR	
	$\chi^* - \chi_A^\bullet$	
LEADER A AND B		
<i>Inclusiveness</i> <sub>A,B</sub>	$W_A = W_B = W$	↓
<i>Uncompetitiveness</i> <sub>A,B</sub>	$\alpha_A = \alpha_B = \alpha$	↓
<i>Tax-Resources</i> <sub>A,B</sub>	$R_A = R_B = R$	↓
<i>Leader Competence</i> <sub>A,B</sub>	$\mu_A = \mu_B = \mu$	↓
<i>Tenure Spell</i> <sub>A,B</sub>	$n_A = n_B = n$	↓

NOTES: Cell entries indicate the models predictions for how parameters (in rows) affect Subgame Perfect Nash Equilibrium (in columns). ↓ refers to a negative effect. i.e. the entry ↓ for *Inclusiveness*<sub>A,B</sub> and WAR indicates that increases in Inclusiveness of both states simulatenously decreases utility of parties for a war.

for two states approaches to zero. Any difference will increase the probability of observing a militarized conflict. In what follows, I present rather more interesting aspects of the model on interstate peace and these predictions are summarized at Table 2.3:

**Corollary 2.4. (Autocratic Peace):** *A simultaneous increase in Uncompetitiveness ( $\alpha$ ) in state A and state B leads to Peace in Subgame Perfect Nash Equilibrium. A simultaneous decrease Uncompetitiveness ( $\alpha$ ) in state A and state B leads to War in Subgame Perfect Nash Equilibrium given the parameters in both states have the same values and  $\Psi = \beta = 0.5$ .*

Given this Corollary, it is hypothesized as:

**Hp 11:** *A decrease in dyadic contestation is likely to decrease the probability of a conflict onset in a dyad.*

This deduction implies a causal mechanism for the understudied empirical regularity *Autocratic Peace*. The second image theories of war and peace generally explain why there is a democratic peace and no peace among non-democratic dyads, as a result, the literature generated little empirical knowledge on the causes of peace among autocracies (Oren and Hays, 1997; Gleditsch and Hegre, 1997; Raknerud and Hegre, 1997; Peceny, Beer and Sanchez-Terry, 2002; Bennet, 2006) and very scant theories for the phenomenon (Werner, 2000; Weeks, 2008). To explain the *Autocratic*

Peace, Werner (2000) argued and found evidence for a political similarity argument: dyads with similar political institutions are likely to experience more peace among each other than politically dissimilar dyads and dissimilarity within a dyad increases conflict. As is clear from Proposition 2.5, the model predicts this regularity, however, with a condition: For autocratic peace to hold as a result of political similarity argument, contestation within both countries should be very low.

**Corollary 2.5. (Democratic Peace):** *A simultaneous increase in Inclusiveness ( $W$ ) in state A and state B leads to Peace in Subgame Perfect Nash Equilibrium. A simultaneous decrease Inclusiveness ( $W$ ) in state A and state B leads to War in Subgame Perfect Nash Equilibrium given the parameters in both states have the same value and  $\Psi = \beta = 0.5$ .*

Given this Corollary, it is hypothesized as:

**Hp12:** *An increase in dyadic inclusiveness is likely to decrease the probability of a conflict onset in a dyad.*

This deduction implies a causal mechanisms for democratic peace. The comparative statics prediction about the coalition size is in line with the selectorate theory (Buono de Mesquita et al., 1999) in that the increases in the size of the coalition increases incentives of coalition members to divert the resources for public good of war. The model predicts a peace when both parties are equally inclusive as predicted by the political similarity argument (Werner, 2000).

Another novelty of the model is the comparative statics prediction that leaders in large coalition polities with higher odds of reselection due to their performance in domestic politics, e.g. higher growth rates, are even more likely to initiate a conflict if their opponents operating in a large coalition polity are in a competence deficit vis-à-vis their domestic political challengers. Dyadically, we can observe a higher probability of peace among large coalition polities whose leaders are perceived as highly competent as the cost of winning increases for both parties whereas the probability of winning remains the same. Large coalition polities monadically are less likely to become engaged in a diversionary war because key constituents in large coalition systems do not tradeoff between domestic political incompetence with a success in foreign policy (George, Hall and Simons, 1971; Blechman et al., 1978; Morgan and Bickers, 1992; Williams, Brule and Koch, 2010). For example, Bulent Ecevit after the victory in Cyprus War (1974), Wiston Churchill after the victory in World War II and George H. W. Bush after the Gulf War I victory, all of which operated in a large coalition system, however, were deposed despite the victory. Even though they brought success in foreign policy, their domestic political (economic) incompetence ( $\mu$ ) led to their deposition.

## 2.3 CONCLUSION

The common rationalist explanations (e.g. Fearon, 1995) in the literature explain war as a result of private information and incentives to misrepresent it. By modeling warfare as a costly process (as the only cost being military expenditure), I show that war and peace can occur in equilibrium under complete information: Peace can occur in equilibrium only if the latent armament capacity is higher as increases in military build-up after a certain threshold will make war a suboptimal outcome as the value of reward (the contested issue and the probability of attaining it) remains constant whereas the cost of achieving the objective in monetary terms gets larger. As a result, peace is equilibrium when both parties possess high latent military capacities. War can occur if any of the parties can incrementally increase military expenditure and still profit from fighting and this happens when both parties possess low latent military capacity. With this new model, I address various interesting phenomena on the nexus between interstate conflict processes and dimensions of democracy.

The theoretical model's contribution to democratic peace research program can be collected under four main themes: War Expenditure, War Outcomes, Deterrence and Peace. The model indicates that democratic peace is caused by a democratic deterrence, which in turn, is determined by arsenal of democracy. The main parameter that leads to this outcome is inclusiveness feature of democracy. In that sense, the model corroborates all the main predictions of the selectorate theory of war (Bueno de Mesquita et al., 1999) and introduces a tractable version of the selectorate theory. The more important contribution of the model is that its finding of an autocratic peace, which is caused by autocratic deterrence, which in turn, is determined by arsenal of autocracy. The main parameter in this causal chain is uncompetitiveness (reverse of contestation). In subsequent chapters I elaborate these two sets of conclusions within their relevant literatures and subject the causal chains to empirical tests and evaluate the usefulness of the model against the alternative explanations with each relevant literature. I do this in two ways: in Chapter 3, 4 and 5, I test the predictions of the theory on three major conflict processes in the theoretical model: Military Expenditure, War Outcome and Resort to Violence. In Chapter 6, I examine the causal mechanisms in a case study of Wars of German Unification and test the theory's predictions by checking for concomitant variation in connected causal chains as specified by the theory and test if the predicted causal processes are at work in each case (Schleswig-Holstein War, Austro-Prussian Rivalry and War, Franco-Prussian War) and each country (Prussia, Denmark, Austria and France).

Like any social-science theory, the theory presented here is highly simplified. To focus on

the mechanisms that are considered as important, I abstracted it from various aspects. An important avenue for future research is an extension of the model to corroborate endogenous alliance formation. Further study should focus on extending the present theoretical model to include an alliance dimension and generate predictions regarding when and how leaders will be willing to make concessions for third party involvement in their existing dispute. This will not only allow us to bring further predictions when and why inclusiveness and contestation dimensions of democracy will allow and press for joining an already initiated dispute, but also will help us explain the variation in war duration for originators and the joiners.

## 2.4 PROOFS

**Proposition 2.1 (Endogenous Militarization Capacity):**

*Proof.* To derive Proposition 2.1, we need to derive the equilibrium defense spending levels for both countries. The expected utility of leader  $i$  from fighting is

$$\mathbb{E} [U_L(g, S, p|WAR)] = S^{1-\Psi} \left[ (v^\pi l^{1-\pi})^\beta \left( \frac{p}{W} + \mu \right)^{1-\beta} \right]^\Psi$$

with logarithmic transformation of the utility function,

$$\text{Log} (\mathbb{E} [U_L(g, S, p|WAR)]) = (1 - \Psi) \text{Log}(S) + \Psi \left( \beta [\pi \text{Log}(v) + (1 - \pi) \text{Log}(l)] + (1 - \beta) \text{Log}\left(\frac{p}{W} + \mu\right) \right)$$

subject to the budget constraint

$$n\alpha R = g + p + S$$

Given conditions  $0 < \Psi < 1 \wedge 0 < \beta < 1 \wedge 0 < \pi < 1 \forall i \in N$ , hence,  $\mathbb{E}' [U_L(z, g|WAR)] > 0$  and  $\mathbb{E}'' [U_L(z, g|WAR)] < 0$ , the leader has the following constrained optimization problem:

$$\mathcal{L}_i(g_i, S_i, p_i, \lambda_i) = \text{Log} (\mathbb{E} [U_L(g, S, p|WAR)]) + \lambda (n\alpha R - S - g - p)$$

The optimal war effort levels ( $g_i^*$  and  $g_j^*$ ) domestic goods ( $p_i^*$  and  $p_j^*$ ) and discretionary resources ( $S_i^*$  and  $S_j^*$ ) as well as the Lagrange multipliers ( $\lambda_i^*$  and  $\lambda_j^*$ ) are defined as

$$g_i^* = \text{argmax} \mathcal{L}_i(g_i, S_i, p_i, \lambda_i)$$

$$p_i^* = \text{argmax} \mathcal{L}_i(g_i, S_i, p_i, \lambda_i)$$

$$S_i^* = \text{argmax} \mathcal{L}_i(g_i, S_i, p_i, \lambda_i)$$

$$\lambda_i^* = \text{argmax} \mathcal{L}_i(g_i, S_i, p_i, \lambda_i)$$

Taking the first derivative of the Lagrangian function with respect to  $S, g, p, \lambda$  setting each resulting equation to zero and solving for  $S, g, p, \lambda$  for country  $i$  and  $j$ , we get:

$$g_i^* = n_i \alpha_i R_i + W_i \mu_i - \frac{1 - \beta_i \Psi_i}{\Omega \beta_i \text{Log}(v)}$$

optimal domestic good spending is given by

$$p_i^* = -W_i \mu_i + \frac{1 - \beta_i}{\Omega \beta_i \text{Log}(v)}$$



optimal allocation to discretionary resources is given by

$$S_i^* = \frac{1 - \Psi}{\Omega\beta_i\Psi\text{Log}(v)}$$

Lagrange multiplier is given by

$$\lambda_i^* = \Omega\beta_i\Psi\text{Log}(v)$$

Given the stationary points of the Lagrangian, we are now checking whether  $g_i^*$ ,  $p_i^*$ ,  $S_i^*$ ,  $\lambda_i^*$  are maximizers of  $\mathcal{L}_i(p_i, g_i, S_i, \lambda_i)$ . To do so, we need to compute the bordered Hessian matrix and subsequently substitute  $g_i^*$ ,  $p_i^*$ ,  $S_i^*$ ,  $\lambda_i^*$

$$H^B = \begin{bmatrix} 0 & \mathcal{L}_{\lambda g} & \mathcal{L}_{\lambda p} & \mathcal{L}_{\lambda S} \\ \mathcal{L}_{\lambda g} & \mathcal{L}_{gg} & \mathcal{L}_{gp} & \mathcal{L}_{gS} \\ \mathcal{L}_{\lambda p} & \mathcal{L}_{pg} & \mathcal{L}_{pp} & \mathcal{L}_{pS} \\ \mathcal{L}_{\lambda S} & \mathcal{L}_{Sg} & \mathcal{L}_{Sp} & \mathcal{L}_{SS} \end{bmatrix} = \begin{bmatrix} 0 & -1 & -1 & -1 \\ -1 & 0 & 0 & 0 \\ -1 & 0 & -\frac{\Psi\beta^2 z^2 \text{Log}(v)^2}{1-\beta} & 0 \\ -1 & 0 & 0 & -\frac{\Psi^2 \beta^2 z^2 \text{Log}(v)^2}{1-\Psi} \end{bmatrix}$$

and check if the bordered Hessian is negative definite, ensuring the sufficiency condition for a maximum. Local maximum requires following signs for the leading border preserving principal minors:  $|H_1^B| < 0$ ,  $|H_2^B| > 0$ ,  $|H_3^B| < 0$ .

$$H_1^B = \begin{bmatrix} 0 & \mathcal{L}_{\lambda g} \\ \mathcal{L}_{\lambda g} & \mathcal{L}_{gg} \end{bmatrix} = \begin{bmatrix} 0 & -1 \\ -1 & 0 \end{bmatrix} \Leftrightarrow |H_1^B| = -1 < 0$$

$$H_2^B = \begin{bmatrix} 0 & \mathcal{L}_{\lambda g} & \mathcal{L}_{\lambda p} \\ \mathcal{L}_{\lambda g} & \mathcal{L}_{gg} & \mathcal{L}_{gp} \\ \mathcal{L}_{\lambda p} & \mathcal{L}_{pg} & \mathcal{L}_{pp} \end{bmatrix} = \begin{bmatrix} 0 & -1 & -1 \\ -1 & 0 & 0 \\ -1 & 0 & -\frac{\Psi\beta^2 z^2 \text{Log}(v)^2}{1-\beta} \end{bmatrix} \Leftrightarrow |H_2^B| = \text{sign} \left( \frac{\Psi\beta^2 z^2 \text{Log}(v)^2}{1-\beta} \right) > 0$$

$$H_3^B = H^B \Leftrightarrow |H_3^B| = \text{sign} \left( -\frac{\Psi^3 \beta^4 z^4 \text{Log}(v)^4}{(1-\beta)(1-\Psi)} \right) < 0$$

Since  $|H_1^B| < 0$ ,  $|H_2^B| > 0$ ,  $|H_3^B| < 0$ , we conclude that the bordered Hessian matrix is negative definite, hence, with  $g_i^*$ ,  $p_i^*$ ,  $S_i^*$ ,  $\lambda_i^*$  we ensure a maximum.  $\square$

**Proposition 2.2 (Endogenous Winning Probability):**

*Proof.* Given the optimal war spending levels ( $g_i^*$  and  $g_{-i}^*$ ) and leader  $i$ 's linearized contest success function  $\pi_i(g_i^*, g_{-i}^*) = \text{Max} [0, \text{Min} [1, \frac{1}{2} + \Omega(g_i - g_{-i})]]$ , the probability that state  $i$  wins the

war is:

$$\pi_i(g_i^*, g_{-i}^*) = \frac{1}{2} + \Omega(n_i\alpha_i R_i + W_i\mu_i - n_{-i}\alpha_{-i}R_{-i} - W_{-i}\mu_{-i}) - \frac{\frac{1}{\beta_i\Psi_i} - \frac{1}{\beta_{-i}\Psi_{-i}}}{\text{Log}(v)}$$

□

**Proposition 2.3 (Deterrence):**

*Proof.*  $B$  plays a cut-off strategy.  $B$ 's pay-off from rejecting the offer is given by  $U_{LB}(g_B^*, S_B^*, p_B^* | WAR)$  and  $U_{LB}(\chi, S_B^*, p_B^* | Accept)$ . To find the cut-off, we first need to derive:  $U_{LB}(\chi, S_B^*, p_B^* | Accept)$ :

$$U_{LB}(\chi, S_B, p_B | Accept) = (1 - \Psi_B) \log(S_B^{Neg}) + \Psi_B \left[ \beta_B \log(\chi) + (1 - \beta_B) \log\left(\frac{p_B^{Neg}}{W_B} + \mu_B\right) \right]$$

and this is subject to a budget constraint

$$n_B\alpha_B R_B = S_B^{Neg} + p_B^{Neg} \quad (2.32)$$

FOC implies:

$$p_B^{*Neg} = \frac{n_B\alpha_B R_B(1 - \beta_B)\Psi_B - W_B\mu_B(1 - \Psi_B)}{1 - \Psi_B\beta_B}$$

$$S_B^{*Neg} = n_B\alpha_B R_B - \frac{n_B\alpha_B R_B(1 - \beta_B)\Psi_B - W_B\mu_B(1 - \Psi_B)}{1 - \Psi_B\beta_B}$$

Checking

$$U_{LB}(g_B^*, S_B^*, p_B^* | WAR) - U_{LB}(\chi, S_B^{*Neg}, p_B^{*Neg} | Accept) = 0 \quad (2.33)$$

and evaluation of the sign of the partial derivatives completes the proof (for a summary of the predictions, see Table 2.2 Column NET FIGHTING UTILITY<sub>B</sub>) □

**Proposition 2.4 (Optimal Offer Size):**

*Proof.* Going up the game tree,  $A$  makes an offer  $\chi$  that will make  $B$  indifferent between accepting and rejecting the offer and I calculate this by isolating  $\chi$  in Equation 2.33:

$$\chi^* = v^{1-\pi_A^*} \left( \frac{1 - \Psi_B \beta_B}{\beta_B \Psi_B (n_B \alpha_B R_B + W_B \mu_B) \Omega \log(v)} \right)^{\frac{1-\Psi_B \beta_B}{\Psi_B \beta_B}}$$

Is it still better to fight than negotiate for A? To define the acceptable, unacceptable regions of  $\chi$ , I derive the offer size such that makes A's herself indifferent between war and negotiation and denote it  $\chi_A^\bullet$ .

$$U_{LA}(\chi, S_A, p_A | Accept) = (1 - \Psi_A) \log(S_A^{Neg}) + \Psi_A \left[ \beta_A \log(v - \chi) + (1 - \beta_A) \log\left(\frac{p_A^{*Neg}}{W_A} + \mu_A\right) \right]$$

and this is subject to a budget constraint

$$n_A \alpha_A R_A = S_A^{Neg} + p_A^{Neg}$$

FOC implies:

$$p_A^{*Neg} = \frac{n_A \alpha_A R_A (1 - \beta_A) \Psi_A - W_A \mu_A (1 - \Psi_A)}{1 - \Psi_A \beta_A}$$

$$S_A^{*Neg} = n_A \alpha_A R_A - \frac{n_A \alpha_A R_A (1 - \beta_A) \Psi_A - W_A \mu_A (1 - \Psi_A)}{1 - \Psi_A \beta_A}$$

As a result, A compares  $U_{LA}(\chi, S_A^{*Neg}, p_A^{*Neg} | Accept)$  against  $U_{LA}(g_A^*, S_A^*, p_A^* | WAR)$  and she is indifferent between the two pay-offs, hence, accepts it when

$$U_{LA}(g_A^*, S_A^*, p_A^* | WAR) - U_{LA}(\chi, S_A^{*Neg}, p_A^{*Neg} | Accept) = 0$$

A's offer  $\chi$  that will make A's herself indifferent between war and negotiation is derived isolating  $\chi$  and I denote it as  $\chi_A^\bullet$ :

$$\chi_A^\bullet = v - v^{\pi_A^*} \left( \frac{1 - \Psi_A \beta_A}{\beta_A \Psi_A (n_A \alpha_A R_A + W_A \mu_A) \Omega \log(v)} \right)^{\frac{1-\Psi_A \beta_A}{\Psi_A \beta_A}}$$

A sends an unacceptable offer if  $\chi^* > \chi_A^\bullet$ : war is the equilibrium when  $\frac{\chi^*}{\chi_A^\bullet} > 1$  and negotiation is the equilibrium when  $\frac{\chi^*}{\chi_A^\bullet} \leq 1$ . Precisely,

$$\begin{aligned}
& \frac{v^{1-\pi_A^*} \left( \frac{1-\Psi_B\beta_B}{\beta_B\Psi_B(n_B\alpha_B R_B+W_B\mu_B)\Omega \log(v)} \right)^{\frac{1-\Psi_B\beta_B}{\Psi_B\beta_B}}}{v - v^{\pi_A^*} \left( \frac{1-\Psi_A\beta_A}{\beta_A\Psi_A(n_A\alpha_A R_A+W_A\mu_A)\Omega \log(v)} \right)^{\frac{1-\Psi_A\beta_A}{\Psi_A\beta_A}}} > 1 && \text{War} \\
& && \leq 1 && \text{Negotiation}
\end{aligned}$$

□

## Chapter 3

# ENDOGENOUS ARMAMENT AND CONTAINING THE SHOCK

### 3.1 INTRODUCTION

IN *PRINCE AND THE DISCOURSES*, Machiavelli revealed us two different dynamics that lead to greatness in dictatorships in his examples of Papal States, France and Spain in 16th century and republics in Athens in 527 BC and Rome in 293 BC. Whereas in the former the ability of the leaders to discretionize resources beyond the control of nobles served to their capacity to finance their wars and bring greatness, in the latter it was the size of the people that kept the leader accountable created a need for the leaders to provide the “common good” of supreme greatness. Corresponding to these seemingly contradictory insights about the sources of supreme greatness in dictatorships and republics, recent IR scholarship developed two seemingly contradictory and somewhat mutually exclusive lines of arguments. The arsenal of democracy strand observed that democracies can outspend their non-democratic opponents (Bueno de Mesquita et al., 1999; Lake,

1992; Schultz and Weingast, 1998) and the proponents of arsenal of autocracy strand found that autocracies are indeed more efficient in allocating fiscal resources for war spending (Kirayoglu and Moon, 2012; Carter and Palmer, 2014). As a result, the literature suffers from either a measurement error and/or an underspecified empirical model or these two lines of arguments within the extant literature are special cases of a larger theoretical model. Building on Machiavelli's insights and drawing on selectorate account of warfare, I present a new second image formal theory for how two persistent features of democracy – contestation and inclusiveness – affect governments' decisions on equilibrium war expenditure and show that the two seemingly contradictory findings within the war time defense expenditure literature are in fact special cases of and corroborated by this general and parsimonious model.

The next section reviews the extant literature and assesses the previous work on regime type and its effect on war-time military expenditures. Then, I analyze the comparative statics predictions of the theory on defense expenditures. Following the research design, I present the results of the large-N empirical analyses and show how the model explain Egypt's differential military expenditure performance in two wars: Six Days War of 1967 and Yom Kippur War of 1973. The concluding discussion develops the implications of the approach for various areas of the literature and offers potential avenues for future research.

## **3.2 THE DEBATE**

Focused on the problem of how leaders in different institutional settings finance war expenditure, the literature on war-time defense spending has generated three mutually exclusive strands of arguments. The first strand argues that democracies can outspend their non-democratic opponents during a war (Bueno de Mesquita, Morrow, Siverson and Smith, 2004; Bueno de Mesquita et al., 1999; Lake, 1992; Schultz and Weingast, 1998). The second and the relatively new strand argues for a diametrically opposite relationship that war spending is more efficient for autocratic leaders' survival than democrats' during a dispute (e.g. Carter and Palmer, 2014; Kirayoglu and Moon, 2012), hence, they can allocate a higher portion of their budget to war-time defense spending and the third and final strand argues for a null relationship between war spending and regime type (Kugler and Domke, 1986; Mearsheimer, 1990; Reiter and Stam, 2003a; Waltz, 2010).

Lake (1992) and Schultz and Weingast (1998) argue that democracies have a greater ability to generate larger government budgets that will help them outspend their non-democratic rivals. Lake's (1992) argument is based on an indirect mechanism that links legitimacy of democratic

governments to a better extraction capacity from the society and a well economic management, which in turn, generates more wealth within the economy. As a result, higher wealth and tax resources allow governments to generate a higher amount of budget allocation for the war-time militarization. In a similar fashion to Lake (1992), Schultz and Weingast (1998) linked higher war expenditure to democracies' ability to attract and greater access to credit, which allows for resources far beyond their capacity to generate tax revenue. That, in turn, provides significant advantages in long-term international rivalries. The causal chain between sovereign creditworthiness and defense spending is also confirmed in recent empirical analyses (DiGiuseppe 2015). Even though these studies have explained the variation between higher access of countries to fiscal resources and their fiscal allocation policies, they did not directly presented an explanation for how and why states with similar economic resources vary in their defense spending.

With a novel focus on leader survival, (Bueno de Mesquita et al., 1999; Bueno de Mesquita, Smith, Siverson and Morrow, 2004) introduced a causal mechanism, which directly connects the political processes to war-time defense spending channels and is able to explain how the inclusiveness dimension of democracy - the size of the winning coalition, the size of the group that chooses the executive body and holds it accountable - affects leaders' decision on whether to allocate the resources to key supporters of the regime in the form of direct resource transfers or channel the available resources to defense spending. Their formal model shows that an increase in the inclusiveness dimension of a polity pushes leader to seek re-selection through provision of public goods, thus, a higher level of war effort during a dispute, whereas the reverse necessitates provision of direct resource transfers, which leaves fewer resources for reciprocating or attacking an adversary. Even though it is popular within the literature, the study had several doubtful assumptions and related to these assumptions, several empirical anomalies. For example, for war onset, the theory predicts that autocratic leaders "are generally reluctant to attack a democracy because democracies try hard. Therefore, [the autocratic] leader knows that her state is likely to lose the war" (Bueno de Mesquita et al., 1999, 802). The empirical evidence, however, cuts just the opposite. Reiter and Stam (2003a) show that democracies are not significantly more likely to target autocracies than vice versa, but autocrats are significantly more likely to target democracies. Furthermore, the deduction that democracies or large-coalition polities are likely to generate higher war effort than small-coalition polities. Empirical analyses presented in Bueno de Mesquita, Morrow, Siverson and Smith (2004), which uses coalition size as the variable of interests and recent studies using less precise composite Polity IV index (Carter and Palmer,

2014; Kirayoglu and Moon, 2012)<sup>1</sup> to measure the composition of the same group indicate opposite directions, where the former shows larger coalition size is associated with higher war-time defense spending and the latter shows higher Polity IV democracy score is associated with lower war-time defense spending<sup>2</sup>.

Goldsmith (2007) argues that political competition is the central causal factor linking regime type to higher war effort rather than inclusiveness. He argues that in competitive polities, a prospect of failure in providing promised goods will necessitate that leaders ensure they have enough resources for policy success. This translates into higher welfare spending during peace years and a military spending during interstate conflicts. When the political system is less competitive, Goldsmith expects, “defense effort can rise to high levels even in peace-time”, however, this does not preclude the possibility of high level of defense spending during war-time. Hence, without a rigorous conceptual model, Goldsmith simultaneously brings diametrically opposed hypotheses in, without presenting precise causal mechanisms that increase or decrease war effort when the regime is less competitive and more competitive. Moreover, Goldsmith’s major finding is that political competition in a polity leads to increases in the defense spending during a conflict and his estimation strategy is to introduce lagged dependent variable (Models 1, 3, 5, 7, 9, 11) and a one-year lag of some variables and contemporary values of some others, but this potentially imposes invalid restrictions on the structure of the data, thereby introducing a bias<sup>3</sup> as he does not test the restrictions that the coefficients of the omitted contemporary values of variables as well as the omitted lagged variables are not significantly different from zero. In all models, unobserved time-invariant individual effects are also absorbed by the error term, leading to an assumption that all countries have the same intercept for increasing defense spending by disregarding their different ex-ante propensity to militarize caused by factors that are either difficult or costly to measure, instead, he opts for atheoretical regional dummies. Some models also erroneously assume that dynamic specification can only be used if and only if the data is non-stationary by dropping that lagged-dependent variable in Models 2, 4, 6, 8, 10, 12<sup>4</sup>. This leads to

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<sup>1</sup> See Coppedge, Alvarez and Maldonado 2008; Bayer and Bernhard 2010

<sup>2</sup> Kirayoglu and Moon (2012) also present a similar finding.

<sup>3</sup> See De Boef and Keele (2008) for the various consequences of imposing invalid restrictions.

<sup>4</sup> He criticizes Bueno de Mesquita, Morrow, Siverson and Smith (2004) for introducing lagged dependent variable to their dynamic specification “because of distorting effects of the lagged dependent variable” citing Achen (2000), an unpublished manuscript and implications of which are criticized by Beck and Katz (2011) quite recently: Omission of lagged dependent variable leads to the restrictive assumption that the effect of the variable is felt only at one specified year but not later. Bueno de Mesquita et al.’s analyses however, similar to Goldsmith, imposes untested invalid restrictions.



an assumption that changes in the values of a variable i.e. the level of contestation or presence of a war have no effect on defense spending that is distributed across time. As a result, Goldsmith neither proposes internally consistent predictions, nor accurately tests them.

In a similar vein, Schultz (1998) focuses on the presence of an opposition party and its actions during an interstate crisis bargaining process, where a leader plays a signaling game with another state and the other state chooses its actions given what the action of opponent leader and the opposition party. His model aims to show how opposition parties reduce the probability of a crisis driven by informational problems and he shows that opposition parties' support or opposition to government's policy during the crisis respectively increases or decreases the credibility of the resolve of government in the eye of the opponent state. The study, however, does not have any direct implication on the nexus between domestic political competition and military expenditures of a government. As a corollary, presence of domestic opposition can only increase war-time military expenditure when a domestic opposition sides with its respective government as this reveals information about the preference of general public for war, a condition logically assigns a high weight on war in public's utility function and this calls for a higher-level of armament. However, the presence of a non-confirmatory opposition may dilute/dampen/sabotage war preparation as happened during the French preparations for Franco-Prussian War of 1871. Moreover, Schultz's model does not preclude the possibility that a government operating with a weak or non-existent opposition party can increase war-time military spending. In this domestic setting, uncontested leaders that derive utility from victory will also increase their military spending.

A new strand has emerged and several studies have brought attention to mechanisms that allow autocracies better ability to generate higher war effort. Sharing numerous commonalities with the selectorate theory, Carter and Palmer (2014) focus on the guns and butter trade-off within autocracies and democracies and leader's problem of optimal allocation on these two goods given a certain type of coalition composition in different settings. In their theoretical model, democratic leaders need the support of the larger public, who derive greater utility from social spending compared to elites, hence, they are constrained from drastic cuts in welfare spending, whereas autocratic leaders do not have such a constraint because satisfying the small ruling elite, who place little value on receiving the benefits of a social welfare state, do not depend on social spending. Carter and Palmer's theory, however, does not explain why civilian elites in small coalition systems – bourgeoisie – should not want social spending or state subsidies to operate their businesses more profitably. They find that autocracies (using composite Polity IV index) increase war effort during conflict to a higher degree than democracies. Similar to previous studies (Bueno de Mesquita, Morrow, Siverson and Smith, 2004; Goldsmith, 2007), their empirical analyses suffer

from a potential bias due to omission of lagged effects of independent variables - or at least they fail to present that their effect were not different from zero. Moreover, given higher war spending determines war-outcomes, recent findings in war outcome literature give noisy credence to both approaches: There is a curvilinear relationship between regime type (measured with composite Polity IV index) and war-winning, that is, highly democratic are slightly better in defeating their opponents than highly autocratic states and the mixed regimes being the worst of all (Reiter, Stam and Downes, 2009). As a result, the logical extension of endogenous armament hypotheses to war-outcome literature and the existing empirical evidence confirms both arsenal of autocracy and arsenal of democracy arguments.

The contribution of my study to this body of literature is three-fold: theoretical and empirical and statistical. First, drawing on the selectorate theory, I introduce a new theoretical model that provides a simultaneous and parsimonious explanation for the conditions under which democrats and autocrats allocate more of their resources to defense spending during disputes and show how two persistent features of democracy – contestation and inclusiveness interact with one another and systematically shape this outcome. I mainly argue that these two dimensions pull war effort generation capacity of states in opposite directions: Whereas the extent of inclusiveness of the regime increases war expenditure and allow us to corroborate arsenal of democracy finding, the contestation (uncontestedness) decreases (increases) war expenditure and allow us to corroborate arsenal of autocracy.

Secondly, aligning theoretical and empirical constructs is essential for sound measurement. The role of democracy on war expenditure is a matter of dispute and the empirical literature direct us to mixed results. Bueno de Mesquita et. al.'s (2004) with a measure of coalition size finds that inclusiveness of a polity increases war expenditure. However, Carter and Palmer (2014) find that democracy – measured by the composite Polity IV index – decreases war expenditure of a state, which may come across as a contradiction. This latter strategy compresses a multidimensional concept into one operational definition, hence, it essentially places the same coefficient in front of all of Polity IV's component (Bayer and Bernhard 2010), which forces a negative coefficient on the sub-components including inclusiveness dimension, which had been shown to have a positive effect. As a result, the extra empirical dimensions captured by the Polity IV index are likely to have a negative effect on war expenditures. From a Dahlian point of view, I show that this extra empirical dimension is contestation by using a dataset from a recent effort to identify the Dahlian dimensions of poliarchy from 13-15 widely used democracy indicators (Coppedge, Alvarez, and Maldonado 2008).

Thirdly, previous studies in this literature imposed restrictive assumptions on the temporal

distribution of the effect of each variable in their estimation models. This study does not assume a temporal distribution for the data generating process but generalizes the empirical model so that we extract this distributional information from the data. In doing so, the study adopts a dynamic specification, uses of a wide array of the information from the data, and estimate the short-run, long-run effects of all right-hand side variables and their corresponding median and mean lengths.

### 3.3 PREDICTIONS OF THE MODEL

Proposition 3.1 presents the optimal defense expenditure levels for each state in the model<sup>5</sup>.

**Proposition 3.1. (Endogenous Militarization Capacity):** *The optimal defense spending for both countries are given by:*

$$g_i^* = n_i \alpha_i R_i + W_i \mu_i - \frac{1 - \beta_i \Psi_i}{\Omega \beta_i \log(v)}$$

The comparative statics predictions indicate that decreases in the level of contestation (increases in  $\alpha$ ) implies a higher level of optimal war spending. As a result, it is hypothesized as

**Hp 1:** *Decreases in the level of contestation in a polity increases military expenditure.*

This deduction explains the characteristics of political regimes that give autocrats a free-hand in their foreign policy and the associated spending. Within the context of interstate conflict, the ability of the leader to contain the international threat depends on her discretionary resources outside the control of the ruling coalition, which negatively depends on the level of contestation within the polity. With this prediction, the model reintegrates our current understanding of logistics of warfare with the centuries-old wisdom of Machiavelli (1988 [1532], 35)’s *Prince*, where he gave advices on achieving greatness to those who come to power through the favor of nobles. For him, the key dilemma for an autocrat was to keep nobles satisfied with revenue allocation for their own exclusive use on the one hand and the ability of a leader to channel these resources for military effectiveness on the other. As the philosopher of *virtu*, Machiavelli instructed his Prince Lorenzo de Medici on how to solve this problem: “Those rulers who have achieved great things ... have all been considered mean (parsimonious); all the others have failed (Machiavelli 1988 [1532], 56). Machiavelli continued: “because of [their] parsimony, [their] revenues are sufficient enough to defend [themselves] against any enemies that attack [them]” and to undertake military

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<sup>5</sup> Proposition 2.1 in **Chapter II: The Opportunity-Willingness Theory of Conflict Processes**

campaigns successfully and gives examples of Pope Julius II, the then King of France Louis XII and the King of Spain Ferdinand. As a result, the optimal solution he proposed was to share the revenue with nobles to an extent which prevents noble defection and keep the remaining resources in war-chest for the times when needed for the military might of the principality.

For instance, the Prussia Otto von Bismarck inherited as a prime minister was experiencing deadlocks in domestic politics within a conservative liberal dichotomy and humiliations in its international affairs. However, soon after he assumed his office, he put an end to this dichotomy and transformed the political map of Europe within less than 10 years with a series of victories against Denmark, Austria, France and smaller Germanic states. Only seven days after he assumed his position as a prime-minister, Bismarck gave his famous “blood-iron” speech in 30 September 1862 over parliament’s rejection of the new military reform and the associated military expenditures: “the great questions of the day are not decided by speeches and majorities—that was the big mistake of 1848 and 1849—but by iron and blood” (Snyder 1958, 203) and he embarked policies to bring liberals in parliament, bureaucracy and judiciary under heavy pressure. Bismarck’s ability to divide and control the opposition and ability to repress protests<sup>6</sup> had given him an unparalleled range of maneuver to discretionize government resources for military expenditures. Given his upper hand and the lack of the credibility of the exit option for the liberals in the *Landtag*, Bismarck was able to detach the prerogative of the parliament and relinked the issue to the de facto prerogative of the executive body. So in effect the *Landtag* had very little control over the Prussian King or his prime-minister. He also declared that lack of an approved budget could not prevent state affairs from continuing, taxes from being collected, and state funds from being disbursed as usual and he said on another occasion that “we will take the money where we find it” (Craig 1955, 164) and Bismarck continued to fund his government’s expenditures without the approval of the parliament from 1862 to late 1866 (during the Schleswig-Holstein War of 1864 and the Austro-Prussian War of 1866). Because Bismarck’s continuing disregard of the parliament’s decision on government expenditures meant the loss of the only operational competence of the parliament, in September 1866, *Landtag* retrospectively legalized the government’s spending from 1862 to 1866 with the Prussian Indemnity Act by a vote of 230 to 75, which meant all the subsequent budgetary decisions would be conducted under the shadow of this act<sup>7</sup>: In

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<sup>6</sup> Carr (1969) indicates that liberals, had nothing, but to accept the policies of the new minister because a revolution similar to the one in 1848 was beyond possibility against a King with some 200.000 well-trained soldiers and the new obedient bureaucrats behind him.

<sup>7</sup> Gordon Craig (1955, 137) - a leading historian of modern Germany - interprets the Indemnity Act of September 1866 as “the capitulation from which middle class liberalism never recovered ...[without which]...the defeat of the liberals would have been accompanied by the termination of the constitutional system and a retreat to a

October 1866, liberals announced their complete acceptance of Bismarck's foreign policy goals adding that in domestic affairs, they would observe "the duties of a vigilant and loyal opposition" (Craig 1955, 177) and this was an open cheque from the liberal parliamentarians to Bismarck for the conduct of his foreign policy against the Louis Napoleon's France.

Analysis of the proposition indicates that the coalition size (increases in  $W$ ) and war effort go hand in hand. As a result, it is hypothesized as

*H<sub>p</sub> 2: Increases in the level of inclusiveness in a polity increases military expenditure.*

More specifically, as the size of the people that keeps the leader accountable pushes the leader to divert resources for armament, while a leader with a small coalition needs to devote it for domestic good spending. This is because the resources committed to domestic resource transfers are necessarily spread more thinly as the coalition grows in size. As Machiavelli (1965, 329) observed in *Discourses on the First Decades of Titus Livius* this mechanism brought Rome and Athens the supreme greatness in their regions: "The reason is easy to understand, because not individual good but common good is what makes cities great. ... Without doubt this common good is thought to be important only in republics because ... those benefited by the said common good are so many that they are able to press [for] it". This comparative statics prediction indicates that the arsenal of democracy is reinforced by the inclusiveness within the polity and corroborates the selectorate account of defense expenditures (Bueno de Mesquita et. al. 1999).

I now turn to design the procedures to test the implications of the theory on regime type and war-time military expenditure of states.

## 3.4 TESTING THE THEORY

### Data

#### *Dependent Variable.*

Since I assess the extent of the military spending during an interstate conflict, I utilize Correlates of War Project's data for military expenditures. It is defined as "the total military budget for a

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system of complete absolutism". In late 1866, even before Bismarck's victory over Austria on July 1866, liberals in *Landtag* started to seek ways to compromise their differences with the government both because of the setback they experienced in recent Prussian elections and because Bismarck's continuing disregard of the parliament's decision on government expenditures meant the loss of the only operational competence of the parliament. For details of the Indemnity Law, see Snyder (1958, 210).

given state for a given year.” (Singer et al 1972, 20). The variable codes all resources devoted to military forces that could be deployed, irrespective of their active or reserve status. It excludes all expenditures of a non-military character, such as police force and captures expenditures directly related to a country’s war-fighting capacity as a result it exclusively focuses on figures going for military purposes that are aimed at increasing state’s capability. In order to smooth the outliers and account for non-negative nature of defense expenditures, I apply a logarithmic transformation.

Further robustness tests utilize another definition used within the defense expenditure literature: Military Spending as a proportion of GDP. In order to ensure comparability with the existing studies, for robustness tests, I use Military Spending as a proportion of GDP. This also allows us to account directly for the defense burden within national economy for each country-year<sup>8</sup>. I also use Diehl (1985)’s regression-based index for military resource allocation using CoW’s National Military Capabilities. Diehl’s index divides the data in to four periods: 1816-1860, 1861-1913, 1919-1938, and 1946-1980. For the first period he calculated the expected annual level of military personnel for each state by regressing total population on military personnel. For the remaining periods, he calculated the expected annual level of military expenditure by regressing energy consumption and iron steel production separately on military expenditure. Dividing observed military personnel/expenditure by their expected values yielded an index of under and over military spending.

### ***Independent Variables.***

Since the theory is directly related to the two dimensions of a polyarchy - inclusiveness and contestation - I utilize an existing dataset (Coppedge, Alvarez and Maldonado, 2008) which conducts factor analysis from the existing 13-15 widely used democracy indicators. The data is available for the period over 1950-2000 and covers 199 countries. Contestation variable reflects the ability of the citizens (or the winning coalition of the leader) to control the leader with a credible exit option. If the leader does not face a serious domestic deposition risk due to incompetent contestation in an uncompetitive arena, the members of the winning coalition will not be able to credibly threaten the leader to defect to a challenger. Contestation variable, in a close connection to its theoretical meaning, measures “the ability of citizens to gather independent information, band together in groups such as parties, compete in elections free of government interference, influence the selection of executive and have their interests and rights protected by courts and

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<sup>8</sup> I also use Military Spending % in GDP, where GDP is estimated for non-major powers (Fordham and Walker 2005).

legislative representatives” (Coppedge, Alvarez and Maldonado, 2008, 637). The data for inclusiveness dimension is acquired from the same dataset and it measures adult suffrage and “captures the size of the group – the selectorate – that chooses the executive or the legislature and holds them accountable”(Coppedge, Alvarez and Maldonado, 2008, 637). For ease of interpretation, I normalize both variable in a scale of 0-1. Following this step I reverse Contestation variable so that higher values mean lower levels of contestation. War is coded 1 if battle-related fatality in a Militarized Interstate Dispute (Jones, Bremer and Singer, 1996) reaches at least 1000 battle-related fatality level, 0 if otherwise.

### ***Control Variables.***

Even though the focus of the study is the role of these two persistent features of democracy - inclusiveness and contestation - on military spending, I also consider several other influences. I include a measure of power distribution within a given pair in order to partial out the effect of standard realist hypothesis that states with a higher distribution of power can more effectively increase their defense spending proportionately higher than their weaker opponents. As a result, Capability Ratio is defined as natural logarithm of side i’s capabilities-composed of military, economic and demographic capability by computing each state’s average share of system-wide capability-in relation to side j’s capabilities. Individual state capabilities are derived the Correlates of War project’s Composite Index of National Capability (CINC) (Singer et. al 1972).

Along with the role of bilateral power balance, the other most important determinants include the pull and push of other players in the international scene: the pressures of changes in the power of adversaries and international balancing calculus as a result of the changes in the ally states’ power. Power shifts in favor of potentially hostile states may be taken as a heightened threat that may lead either to war as a result of commitment problems or suboptimal bargaining position in the future and this in turn translates into incentives for a larger defense budget (Olson and Zeckhauser 1966). The calculus of military expenditures also depends on power shifts favoring friendly states as this may influence their decisions on war effort and alliances with powerful states may yield an favorable dispute outcome while devoting a relatively small amount of resources for defense expenditure (Olson and Zeckhauser 1966). Following the recent practice in the literature (Fordham and Walker 2005; Conrad et. al 2013), I define hostile states as “strategic rivals” that Thompson (2001) identifies and “allies” as those states with which a state has a defence pact with the state of interest. I then use CINC scores (Singer et. al 1972) and sum these scores separately for rivals and for allies to generate respectively Military Power of Rivals and

## Military Power of Allies.

In addition to these three power variables, the nature of military conflict and the the extent of threat it poses to national security have been strong predictors of defense burden of states. To capture the intensity of military conflict, I use the Interstate War Battle Deaths related to an interstate or extra-state conflict in a given year (Fordham and Walker 2005). Moreover, intrastate conflicts also divert states' military capacity from interstate conflict and to capture its intensity I utilize Civil War Deaths. Both types of battle-related fatalities are expected to positively co-vary with military resource allocation.

The theoretical model predicts that resources available to leaders increase their ability to allocate larger sum of funds to defense expenditures. I also include population and gross domestic product (GDP) figures to account for the human and capital resource base available to states, hence, account for their ex ante ability to generate war expenditure. The GDP and Population figures are acquired from Gleditsch (2002). I also include Population to account for ex ante ability of states to generate war expenditure as the tax-base. The data is acquired from the Correlates of War project (Singer et. al 1972). Summary statistics are presented at Table 3.1.

Table 3.1: SUMMARY STATISTICS

<i>Variable</i>	N	Mean	Std.Dev	Min	Max
<i>Military Expenditures<sup>a</sup></i>	996,351	11.58	3.70	0.00	19.58
<i>Military Expenditures/GDP<sup>a</sup></i>	921,863	2.56	4.69	0.00	136.87
<i>Military Expenditures/GDP<sup>a,b</sup></i>	925,857	2.55	4.72	0.00	136.86
<i>Diehl Armament Index</i>	996,351	0.38	0.65	0.00	10.86
<i>Inclusiveness</i>	1,054,052	0.64	0.20	0.00	1.00
<i>Contestation</i>	1,054,052	0.52	0.27	0.00	1.00
<i>War</i>	1,053,335	0.00	0.02	0.00	1.00
<i>Capability Score (A/B)<sup>a</sup></i>	1,052,916	0.00	3.16	-11.96	11.96
<i>Capability of Allies<sup>a</sup></i>	1,054,052	0.09	0.12	0.00	0.62
<i>Capability of Rivals<sup>a</sup></i>	1,054,052	0.01	0.04	0.00	0.46
<i>Interstate-War Deaths</i>	1,052,725	0.00	0.03	0.00	1.16
<i>Civil War Deaths</i>	1,052,725	0.01	0.15	0.00	9.44
<i>Population<sup>a</sup></i>	1,054,052	8.63	1.89	2.40	14.06
<i>GDP<sup>a</sup></i>	1,048,354	16.87	2.03	11.32	22.94

<sup>a</sup>Logarithm transformed

<sup>b</sup>Estimated GDP figure



## Estimation Strategy

Using large-N data on dimensions of democracy and war effort of states, I empirically evaluate the two main theoretical propositions about the role of inclusiveness and contestation. I estimate a general Error Correction Model (ECM) and test the predictions of the model regarding war-time defense expenditures. This estimation strategy relaxes the restrictive assumptions on the temporal distribution of the effect of each variable and allows us to extract the true distributional information from the data and to estimate short-run, long-run effects of all right-hand side variables and the speed of how fast the effect of a shock dissipates over time. More specifically, I estimate the following baseline parametrization (Bardsen, 1989) of the form:

$$\Delta Y_{i,t} = \phi Y_{i,t-1} + \beta_0 + \sum_{i=1}^k \Delta \mathbf{x}_{i,t} \gamma_i + \sum_{i=1}^k \mathbf{x}_{i,t-1} \beta_i + \varsigma_{i,j} + \tau_t + \epsilon_{i,t} \quad (3.1)$$

where  $Y_{i,t}$  is the military expenditure of state  $i$ ,  $\mathbf{x}_i$  is a vector of independent variables, where  $\bar{\mathbf{x}}_{i,t} = (\text{Inclusiveness}_{i,t}, \text{Uncompetitiveness}_{i,t}, \text{Inclusiveness}_i \times \text{War}_{i,j,t}, \text{Uncompetitiveness}_i \times \text{War}_{i,j,t}, \text{War}_{i,j,t})$ ,  $\phi$  is the error correction parameter,  $\gamma_i$  and  $\beta_i$  are effect parameters,  $\varsigma_{i,j}$  is the unobservable dyad specific time invariant effects and  $\tau$  is the unobservable time specific effects which capture common shock to military spending for all pairs across each period and  $\epsilon_{i,t}$  is the stochastic error term<sup>9</sup>. The political quantities of interest derived from this model are presented below.

## 3.5 RESULTS

Table 3.2 reports the main empirical results of the fully dynamic specification analyzing all countries for the period over 1950-2000 and Table 3.3 presents the interpretations of interactions, short-run and long run effects of each variable.

Dynamic specification allows us to use the wide array of the information available and estimate the short-term effects and long-term effects of all right-hand side variables and allows us to extract the empirical distribution of temporal variation in military expenditures (De Boef and

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<sup>9</sup> From a war making-state making perspective, one potential caveat could be an endogeneity problem between defense expenditures and contestation dimension as expectations of substantial militarization may lead to repercussions in the contestation dimension in a reciprocal way (Rasler and Thompson 2004). This is actually an informal expectation of the framework: In order to discretionize resources for the war-chest, leaders shut the system under a state of emergency so that no one can effectively challenge the conduct of the government during the warfare. As a result, the theoretically, such a mechanism is a feature of the theory's implications and a confirmation of the proposition relating to contestation dimension.

Table 3.2: INCLUSIVENESS, CONTESTATION AND WAR EFFORT

$\Delta$ Military Expenditure $_{A,t}$	Model 1
$\Delta$ Inclusiveness $_{A,t}$	0.17*** (0.01)
$\Delta$ Uncompetitiveness $_{A,t}$	0.42*** (0.01)
$\Delta$ Inclusiveness $_A \times \Delta$ War $_{A,B,t}$	0.53*** (0.18)
$\Delta$ Uncompetitiveness $_A \times \Delta$ War $_{A,B,t}$	0.43*** (0.09)
$\Delta$ War $_{A,B,t}$	0.02 (0.09)
Inclusiveness $_{A,t-1}$	0.10*** (0.01)
Uncompetitiveness $_{A,t-1}$	0.32*** (0.01)
Inclusiveness $_{A,t-1} \times$ War $_{A,B,t-1}$	-0.15 (0.17)
Uncompetitiveness $_{A,t-1} \times$ War $_{A,B,t-1}$	-0.24** (0.12)
War $_{A,B,t-1}$	0.07 (0.07)
Military Expenditure $_{A,t-1}$	-0.3*** (0.00)
Constant	2.94*** (0.04)
Observations	942,423
R <sup>2</sup>	0.23
# of Clusters	37,216
Avg. Observations for Clusters	25.3

Standard errors corrected for clustering by dyad are in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 3.3: INTERPRETING INTERACTIONS, SHORT-RUN AND LONG-RUN EFFECTS

$\Delta$ Military Expenditures $_{A,t}$	Short-Run Effect		Long-Run
	$T$	$T-1$	Effect
<i>Uncompetitiveness</i> $_A$   <i>War</i> $_{A,B}$	0.85*** (0.09)	-0.77*** (0.14)	0.27 (0.41)
<i>Uncompetitiveness</i> $_A$   $\neg$ <i>War</i> $_{A,B}$	0.41*** (0.012)	-0.10*** (0.01)	1.11*** (0.03)
<i>Inclusiveness</i> $_A$   <i>War</i> $_{A,B}$	0.69*** (0.18)	-0.74*** (0.22)	-0.17 (0.61)
<i>Inclusiveness</i> $_A$   $\neg$ <i>War</i> $_{A,B}$	0.16*** (0.01)	-0.07*** (0.01)	0.34*** (0.02)
Observations	942,424		
R <sup>2</sup>	0.23		
# of Clusters	37,216		
Avg. Observations for Clusters	25.3		

Standard errors corrected for clustering by dyad are in parentheses.

Point estimates for the Long-Run Effect of each variable are calculated by  $\beta_i / \phi$ , where  $\phi$  is the coefficient of the error correction term.

Standard errors for Long-Run Effect are calculated with delta method.

\*  $p < 0.10$  , \*\*  $p < 0.05$  , \*\*\*  $p < 0.01$

Keele 2008). In the ECM specification, the two short term effects of each variable are directly given by (1) the point estimate of the coefficient for the differenced variable  $\gamma_i$  and (2) the difference between the coefficient of the lagged variable and that of the differenced variable ( $\beta_i - \gamma_i$ ). The point estimate for long-term effect of  $x_i$  are calculated by  $LTE_{x_i} = \beta_i/\phi$ .

Given that the model includes an interaction term, the coefficients are not illuminating on their own, and we have to calculate substantively meaningful marginal effects and standard errors for each specification (Brambor et al. 2006). Following the practice suggested by Kam and Franzese (2003), I report the effect of Inclusiveness and Uncompetitiveness on Military Spending when War = 1 and War = 0. The first and second conditional short-run effects of Uncompetitiveness ( $U$ ) are analytically calculated from Equation 3.1 and the immediate effect of the variable on military spending is

$$\frac{\partial \Delta Y_{i,t}}{\partial U_{i,t}} = \gamma_1 + \gamma_3 \text{War}_{i,j,t} \quad (3.2)$$

The lagged short run effect of the variable on military spending is

$$\frac{\partial \Delta Y_{i,t}}{\partial U_{i,t-1}} - \frac{\partial \Delta Y_{i,t}}{\partial U_{i,t}} = (\beta_1 + \beta_3 \text{War}_{i,j,t-1}) - (\gamma_1 + \gamma_3 \text{War}_{i,j,t}) \quad (3.3)$$

In a similar fashion, the immediate effect of Inclusiveness ( $I$ ) is calculated as

$$\frac{\partial \Delta Y_{i,t}}{\partial I_{i,t}} = \gamma_2 + \gamma_4 \text{War}_{i,j,t} \quad (3.4)$$

and the lagged short-run effect is calculated as

$$\frac{\partial \Delta Y_{i,t}}{\partial I_{i,t-1}} - \frac{\partial \Delta Y_{i,t}}{\partial I_{i,t}} = (\beta_2 + \beta_4 \text{War}_{i,j,t-1}) - (\gamma_2 + \gamma_4 \text{War}_{i,j,t}) \quad (3.5)$$

and the long run effects are calculated as:

$$LTE_U = \frac{\beta_1 + \beta_3 \text{War}_{i,j,t-1}}{\phi} \quad (3.6)$$

$$LTE_I = \frac{\beta_2 + \beta_4 \text{War}_{i,j,t-1}}{\phi} \quad (3.7)$$

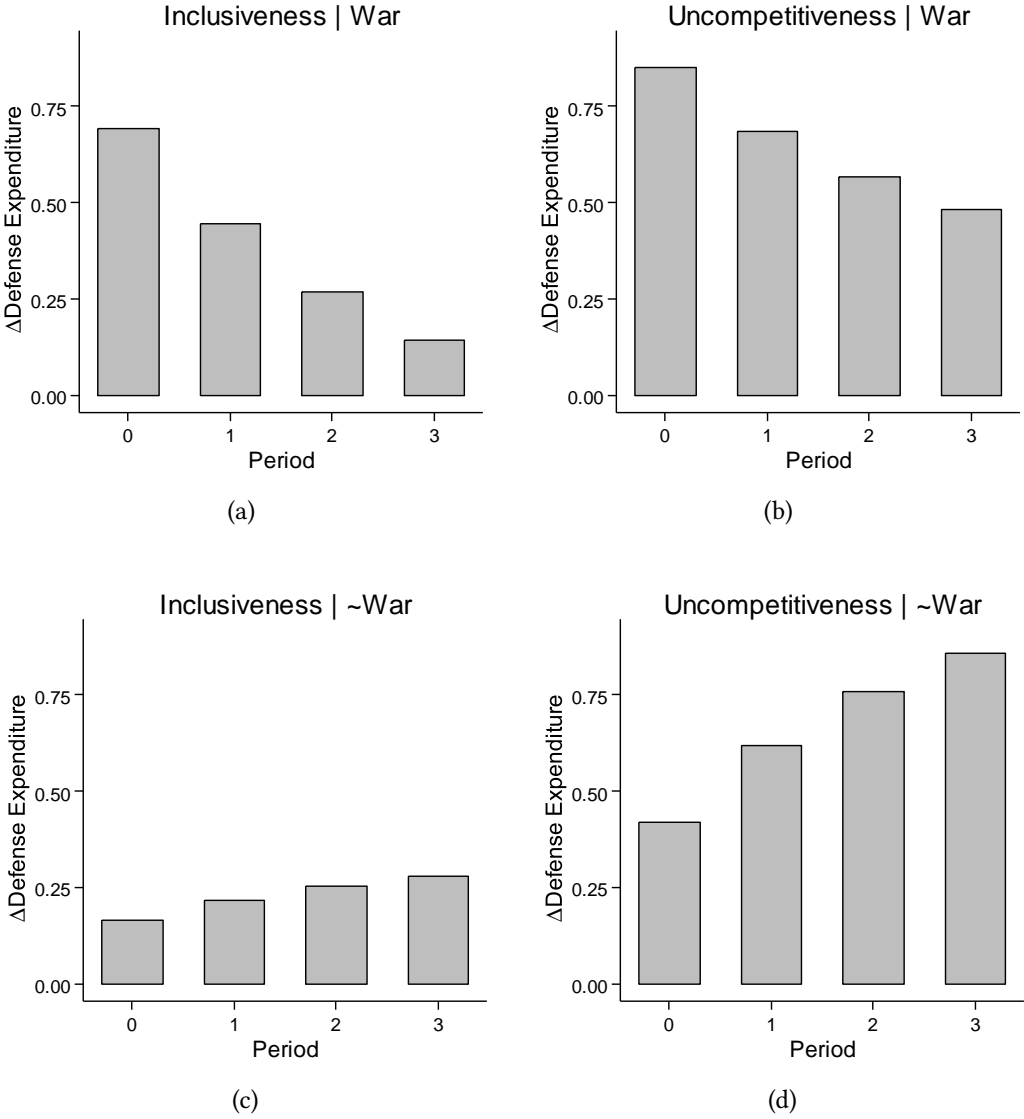
As can be seen at Table 3.3 Column 1, the immediate effect of Uncompetitiveness on war time military spending (Uncompetitiveness|War) is positive (0.85) and highly significant ( $p < 0.001$ ).

This confirms Hypothesis 1 that uncompetitive regimes bring higher effort than competitive regimes. Moreover, the immediate effect of Inclusiveness on war time military spending (Inclusiveness – War) is positive (0.41) and highly significant ( $p < 0.001$ ) in line with the comparative statics prediction of the formal model (Hypothesis 2). The temporal distribution of each effect are shown at Figure 3.1 and we observe that after the first year (Period= 0) of war, inclusive regimes experience an important demilitarization in the course of war. Figure 3.1b also shows a similar tendency for uncompetitive regimes, but they cut military spending very slightly. Since both Uncompetitiveness and Inclusiveness variables vary over the same scale of 0 – 1, the marginal effects can also be compared and it is interesting to observe from both Table 3.3 and Figure 3.1a and Figure 3.1b that Uncompetitiveness has a larger marginal positive effect than Inclusiveness in the first year of war and this difference between the two is even more pronounced as a war drags on.

Even though the theoretical model presented in this paper is related to war time military spending, the fully dynamic empirical model has implications for defense burden during non-war years. As can be seen from Table 3.3, in the absence of a war, increases in Inclusiveness (INCLUSIVENESS | $\neg$ WAR) has a positive, significant but small effect in the first year (0.16,  $p < 0.001$ ). In the long run, the cumulative effect is negative (–0.17), however, insignificant. Moreover, increases in Uncompetitiveness (UNCOMPETITIVENESS| $\neg$ WAR) again has a large, positive and significant effect in the first year (0.41,  $p < 0.001$ ) and in the long run this effect almost triples (1.11,  $p < 0.001$ ). Even though the theoretical model does not have predictions regarding the peace time armament, the main conclusion is that the effect of Uncompetitiveness is larger than the effect of Inclusiveness both in the presence and absence of war. The extant literature indicates that democratic regimes have smaller defense burdens by using composite Polity IV index (e.g. Goldsmith 2007; Fordham and Walker 2005; Quiroz Flores 2011). From a Dahlian point of view, this result is driven by contestation feature of democracy as increasing contestation is associated with both short and long term negative effect on defense spending, whereas increasing Inclusiveness within the polity corresponds to a higher short-term armament effect.

A further comparison of war time and peace time defense spendings show that one unit increase in Inclusiveness and presence of a war increases the military spending up-to three-fold, whereas one unit increase in Uncompetitiveness and a presence of war increases doubles the spending. As a stark and definitive comparison, the following result can be drawn: Even though inclusive regimes' military spending increases three-fold vis-à-vis uncompetitive regimes two-fold increase due to war, uncompetitive regimes are slightly better than inclusive regimes when the war starts, however, this gap widens in favor of uncompetitive regimes as the war continues.

Figure 3.1: DISTRIBUTED LAGS OF THE CUMULATIVE MARGINAL EFFECTS



Notes: The Y axis shows changes in Defense Expenditures and it is in logarithmic scale.

### 3.5.1 Robustness Tests

Table 3.4 and Table 3.5 introduce additional control variables from military spending literature to the main specification in Equation 3.1. Model 1 introduces the null model, where there is no control variables. All other models in Table 3.4 and Table 3.5 introduce each control variables separately: CAPABILITY RATIO, MILITARY POWER OF ALLIES, MILITARY POWER OF RIVALS, INTER-STATE WAR BATTLE DEATHS, INTRASTATE WAR BATTLE DEATHS, POPULATION, GDP and a subsequent model (not presented to save space) that includes all variables in the same regression. All control variables have their expected signs and significance levels, except MILITARY POWER OF ALLIES is insignificant. In a nutshell, for the control variables, the analyses suggest that states with a higher distribution of power can more effectively increase their defense spending proportionately higher than their weaker opponents. The analyses also suggest that power shifts in favor of potentially hostile states may be taken as a heightened threat that may lead either to war as a result of commitment problems or suboptimal bargaining position in the future and this in turn translates into incentives for a larger defense budget (Olson and Zeckhauser 1966). We also observe that the intensity of domestic and interstate conflict and the extent of threat it poses to national security do have positive effect on allocation of resources for defense expenditures (Fordham and Walker 2005). Moreover, in line with the theoretical model's expectations, resources in terms of - GDP and indirectly population - available to leaders increase their ability to allocate larger sum of funds to defense expenditures. Whereas GDP account for the human and capital resource base available to states, hence, account for their ex ante ability to generate war expenditure, Population accounts for the ex ante ability of states to generate war expenditure as the tax-base. The fact that MILITARY POWER OF ALLIES does not have a statistically significant effect on defense expenditure can be interpreted by the risk averse behavior of states as they are not sure if the allies will act in line with the alliance pact, hence, leave less things to chance.

As can also be seen, the null model (Model 1) explains the %23.2 percent of the variation in the dependent variable with only three variables. All the models including each control variable increases  $R^2$  only marginally and it reaches the highest value (%25.2) in Model 2 where CAPABILITY RATIO is included. In all models, as can be seen from Table 3.6, which interprets interactions and shows the immediate effect of INCLUSIVENESS|WAR and UNCOMPETITIVENESS|WAR, the signs and significance levels of both variables are without exception positive and and highly significant.

A further analysis shows that even when a standard measure utilized in the literature (Polity IV) is introduced to the null model, results remain robust. As can be seen at Table 3.7 and Table 3.8, main independent variables of interest – INCLUSIVENESS|WAR and UNCOMPETITIVENESS|WAR

Table 3.4: ROBUSTNESS TESTS WITH VARIOUS CONTROL VARIABLES

$\Delta$ Military Expenditure $_{A,t}$	Model 1	Model 2	Model 3	Model 4
$\Delta$ Inclusiveness $_{A,t}$	0.17*** (0.01)	0.13*** (0.01)	0.15*** (0.01)	0.16*** (0.01)
$\Delta$ Uncompetitiveness $_{A,t}$	0.42*** (0.01)	0.36*** (0.01)	0.40*** (0.01)	0.42*** (0.01)
$\Delta$ Inclusiveness $_A \times \Delta$ War $_{A,B,t}$	0.53*** (0.18)	0.81*** (0.17)	0.53*** (0.18)	0.57*** (0.18)
$\Delta$ Uncompetitiveness $_A \times \Delta$ War $_{A,B,t}$	0.43*** (0.09)	0.63*** (0.09)	0.44*** (0.09)	0.42*** (0.09)
$\Delta$ War $_{A,B,t}$	0.02 (0.09)	-0.06 (0.08)	0.02 (0.09)	-0.02 (0.09)
$\Delta$ Capability Ratio $_{A/B,t}$		0.63*** (0.01)		
$\Delta$ Capability of Allies $_{A,t}$			0.033 (0.04)	
$\Delta$ Capability of Rivals $_{A,t}$				0.88*** (0.05)
Inclusiveness $_{A,t-1}$	0.10*** (0.01)	0.07*** (0.01)	0.08*** (0.01)	0.10*** (0.01)
Uncompetitiveness $_{A,t-1}$	0.32*** (0.01)	0.26*** (0.01)	0.29*** (0.01)	0.31*** (0.01)
Inclusiveness $_{A,t-1} \times$ War $_{A,B,t-1}$	0.10 (0.17)	-0.15 (0.16)	-0.06 (0.17)	(0.18)
Uncompetitiveness $_{A,t-1} \times$ War $_{A,B,t-1}$	-0.24** (0.12)	-0.0059 (0.10)	-0.19 (0.12)	-0.23* (0.12)
War $_{A,B,t-1}$	0.07 (0.07)	0.03 (0.07)	0.09 (0.07)	-0.01 (0.07)
Capability Ratio $_{A/B,t-1}$		0.14*** (0.00)		
Capability of Allies $_{A,t-1}$			0.62*** (0.03)	
Capability of Rivals $_{A,t-1}$				1.17*** (0.03)
Military Expenditure $_{A,t-1}$	-0.29*** (0.00)	-0.29*** (0.00)	-0.29*** (0.00)	-0.29*** (0.00)
Constant	2.94*** (0.04)	2.97*** (0.04)	2.89*** (0.03)	2.94*** (0.04)
Observations	942,423	942,050	942,423	942,423
R <sup>2</sup>	0.23	0.25	0.23	0.23

Standard errors corrected for clustering by dyad are in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$



Table 3.5: ROBUSTNESS TESTS WITH VARIOUS CONTROL VARIABLES

$\Delta$ Military Expenditure $_{A,t}$	Model 1	Model 2	Model 3	Model 4
$\Delta$ Inclusiveness $_{A,t}$	0.17*** (0.01)	0.16*** (0.01)	0.16*** (0.01)	0.14*** (0.01)
$\Delta$ Uncompetitiveness $_{A,t}$	0.42*** (0.01)	0.42*** (0.01)	0.41*** (0.01)	0.40*** (0.01)
$\Delta$ Inclusiveness $_A \times \Delta$ War $_{A,B,t}$	0.52*** (0.18)	0.39** (0.18)	0.55*** (0.18)	0.52*** (0.18)
$\Delta$ Uncompetitiveness $_A \times \Delta$ War $_{A,B,t}$	0.43*** (0.09)	0.30*** (0.10)	0.45*** (0.09)	0.47*** (0.10)
$\Delta$ War $_{A,B,t}$	0.03 (0.09)	0.01 (0.08)	0.02 (0.09)	0.06 (0.09)
$\Delta$ Civil War Deaths $_{A,t}$	0.06*** (0.00)			
$\Delta$ Inter-state War Deaths $_{A,t}$		1.57*** (0.03)		
$\Delta$ Population $_{A,t}$			0.63*** (0.02)	
$\Delta$ GDP $_{A,t}$				-0.03*** (0.01)
Inclusiveness $_{A,t-1}$	0.10*** (0.01)	0.09*** (0.01)	0.09*** (0.01)	0.04*** (0.01)
Uncompetitiveness $_{A,t-1}$	0.32*** (0.01)	0.32*** (0.01)	0.30*** (0.01)	0.29*** (0.01)
Inclusiveness $_{A,t-1} \times$ War $_{A,B,t-1}$	-0.16 (0.17)	-0.36** (0.16)	-0.09 (0.18)	-0.17 (0.15)
Uncompetitiveness $_{A,t-1} \times$ War $_{A,B,t-1}$ A	-0.24** (0.12)	-0.45*** (0.11)	-0.20 (0.12)	-0.15 (0.11)
War $_{A,B,t-1}$	0.072 (0.07)	0.042 (0.06)	0.048 (0.07)	0.15** (0.06)
Civil War Deaths $_{A,t-1}$	0.08*** (0.01)			
Inter-state War Deaths $_{A,t-1}$		1.35*** (0.03)		
Population $_{A,t-1}$			0.16*** (0.01)	
GDP $_{A,t-1}$				0.35*** (0.01)
Military Expenditures $_{A,t-1}$	-0.29*** (0.00)	-0.29*** (0.00)	-0.29*** (0.00)	-0.30*** (0.00)
Observations	942,045	942,045	942,423	938,028
R <sup>2</sup>	0.23	0.23	0.23	0.25

Standard errors corrected for clustering by dyad are in parentheses.

Constant is not presented to save space.

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\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 3.6: INTERPRETING INTERACTIONS, SHORT-RUN AND LONG-RUN EFFECTS IN MODELS WITH VARIOUS CONTROL VARIABLES

Model	Control Variable	Inclusiveness <sub>A</sub>		Uncompet. <sub>A</sub>	
		$\beta$	S.E.	$\beta$	S.E.
<b>Model 1</b>	<i>Null Model</i>	0.69	0.18***	0.85	0.09***
<b>Model 2</b>	<i>Capability Ratio<sub>A/B</sub></i>	0.94	0.17***	0.99	0.09***
<b>Model 3</b>	<i>Capability of Allies<sub>A,t</sub></i>	0.69	0.18***	0.84	0.09***
<b>Model 4</b>	<i>Capability of Rivals<sub>A,t</sub></i>	0.73	0.18***	0.84	0.09***
<b>Model 5</b>	<i>Civil War Deaths<sub>A,t</sub></i>	0.69	0.18***	0.85	0.09***
<b>Model 6</b>	<i>Inter-state War Deaths<sub>A,t</sub></i>	0.55	0.18***	0.72	0.10***
<b>Model 7</b>	<i>Population<sub>A,t</sub></i>	0.72	0.18***	0.86	0.09***
<b>Model 8</b>	<i>GDP<sub>A,t</sub></i>	0.66	0.18***	0.87	0.10***
<b>Model 9</b>	<i>All Control Variables</i>	0.82	0.18***	0.88	0.11***

The point estimates and corresponding standard errors are derived from Table 4 & 5, with one exception: Model 9 was not presented in previous tables for space concerns.

– remain both positive (with a higher magnitude this time) and highly significant when we include Polity IV to the null equation. Moreover, we also observe that Polity IV does not exert a significant when a war starts. Polity IV is associated with negative defense expenditure in the second year of war and from then on it continues to decrease military expenditure<sup>10</sup>.

Within the arsenal of democracy camp, Schultz and Weingast (1998) linked higher war expenditure to democracies' ability to attract and greater access to credit, which allows for resources far beyond their capacity to generate tax revenue. As a result, to distinguish the effect of inclusiveness on war time military expenditure from the advantage in raising foreign capital, I control for credit-rating of a state (Allen and Digioseppe 2013). The analysis shows that even when we account for the credit-rating of a state, and introduce it to the null model, results remain highly robust. As can be seen from Table 3.9, INCLUSIVENESS|WAR and UNCOMPETITIVENESS|WAR – remain both positive (even with a higher magnitude this time) and highly significant. Substantively, interpretation of the interactive effect indicates that INCLUSIVENESS|WAR has a positive coefficient of 1.38 and is highly significant ( $p < 0.001$ ) and UNCOMPETITIVENESS|WAR has a positive coefficient of 1.14 and highly significant ( $p < 0.001$ ).

In all previous tables, I have utilized absolute amount of military expenditure as the depen-

<sup>10</sup> Theoretically, I am not aware of any study that predicts the effect of Polity IV on defense expenditure only during and after the second year of a war. Moreover, this specific analysis requires caution. Within the sample, Polity IV and Uncompetitiveness are highly correlated (-0.96). Given such a correlation, the fact that the signs and significance level of Uncompetitiveness remains the same is indicative of the robustness of the results.

Table 3.7: CONTROLLING FOR POLITY IV

$\Delta$ Military Expenditure <sub>A,t</sub>	Model 1
$\Delta$ Inclusiveness <sub>A,t</sub>	0.11*** (0.01)
$\Delta$ Uncompetitiveness <sub>A,t</sub>	0.11*** (0.02)
$\Delta$ Polity IV <sub>A,t</sub>	-0.013*** (0.00)
$\Delta$ Inclusiveness <sub>A</sub> × $\Delta$ War <sub>A,B,t</sub>	0.50*** (0.18)
$\Delta$ Uncompetitiveness <sub>A</sub> × $\Delta$ War <sub>A,B,t</sub>	0.58* (0.33)
$\Delta$ Polity IV <sub>A,t</sub> × $\Delta$ War <sub>A,B,t</sub>	0.0060 (0.01)
$\Delta$ War <sub>A,B,t</sub>	0.13 (0.17)
Inclusiveness <sub>A,t-1</sub>	0.075*** (0.01)
Uncompetitiveness <sub>A,t-1</sub>	0.049** (0.02)
Polity IV <sub>A,t-1</sub>	-0.011*** (0.00)
Inclusiveness <sub>A,t-1</sub> × War <sub>A,B,t-1</sub>	-0.23 (0.18)
Uncompetitiveness <sub>A,t-1</sub> × War <sub>A,B,t-1</sub>	-1.26*** (0.32)
Polity IV <sub>A,t-1</sub> × War <sub>A,B,t-1</sub>	-0.041*** (0.01)
War <sub>A,B,t-1</sub>	-0.36** (0.15)
Military Expenditure <sub>A,t-1</sub>	-0.33*** (0.00)
Constant	3.39*** (0.05)
Observations	830,302
R <sup>2</sup>	0.276
# of Clusters	31,151
Avg. Observations for Clusters	26.7

Standard errors corrected for clustering by dyad are in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 3.8: INTERPRETING INTERACTIONS, SHORT-RUN AND LONG-RUN EFFECTS AND CONTROLLING FOR POLITY IV

$\Delta$ Military Expenditures $_{A,t}$	<i>Short-Run Effect</i>		<i>Long-Run</i>
	<i>T</i>	<i>T-1</i>	<i>Effect</i>
<i>Uncompetitiveness<sub>A</sub>   War<sub>A,B</sub></i>	0.68** (0.32)	-1.89*** (0.38)	-3.68*** (0.98)
<i>Uncompetitiveness<sub>A</sub>   ¬War<sub>A,B</sub></i>	0.11*** (0.02)	-0.06*** (0.02)	0.15** (0.07)
<i>Inclusiveness<sub>A</sub>   War<sub>A,B</sub></i>	0.61*** (0.17)	-0.77*** (0.22)	-0.47 (0.53)
<i>Inclusiveness<sub>A</sub>   ¬War<sub>A,B</sub></i>	0.11*** (0.01)	-0.04*** (0.01)	0.22*** (0.02)
<i>Polity IV<sub>A</sub>   War<sub>A,B</sub></i>	-0.01 (0.01)	-0.04*** (0.01)	-0.15*** (0.04)
<i>Polity IV<sub>A</sub>   ¬War<sub>A,B</sub></i>	-0.01*** (0.00)	-0.00** (0.00)	-0.03*** (0.00)
Observations	830,302		
R <sup>2</sup>	0.276		
# of Clusters	31,151		
Avg. Observations for Clusters	26.7		

Standard errors corrected for clustering by dyad are in parentheses.

Point estimates for the Long-Run Effect of each variable are calculated by  $\beta_i / \phi$ , where  $\phi$  is the coefficient of the error correction term.

Standard errors for Long-Run Effect are calculated with delta method.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 3.9: CONTROLLING FOR CREDIT RATING

$\Delta$ Military Expenditure <sub>A,t</sub>	Model 1
$\Delta$ Inclusiveness <sub>A,t</sub>	0.60*** (0.01)
$\Delta$ Uncompetitiveness <sub>A,t</sub>	0.38*** (0.01)
$\Delta$ Inclusiveness <sub>A</sub> × $\Delta$ War <sub>A,B,t</sub>	1.32*** (0.38)
$\Delta$ Uncompetitiveness <sub>A</sub> × $\Delta$ War <sub>A,B,t</sub>	0.76*** (0.11)
$\Delta$ War <sub>A,B,t</sub>	-0.33 (0.27)
Inclusiveness <sub>A,t-1</sub>	0.05*** (0.01)
Uncompetitiveness <sub>A,t-1</sub>	0.40*** (0.01)
Inclusiveness <sub>A,t-1</sub> × War <sub>A,B,t-1</sub>	-0.02 (0.34)
Uncompetitiveness <sub>A,t-1</sub> × War <sub>A,B,t-1</sub>	-0.40 (0.25)
War <sub>A,B,t-1</sub>	-0.21 (0.24)
$\Delta$ Institutional Investor Rating <sub>A,t</sub>	0.00*** (0.00)
Institutional Investor Rating <sub>A,t-1</sub>	0.00*** (0.00)
Military Expenditure <sub>A,t-1</sub>	-0.35*** (0.00)
Constant	4.62*** (0.07)
Observations	363,659
R <sup>2</sup>	0.24
# of Clusters	260,72
Avg. Observations for Clusters	13.9

Standard errors corrected for clustering by dyad are in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

dent variable. Table 3.10 now changes the operationalization of the dependent variable of Table 1 and replicates it respectively with Diehl (1985)'s under and over-armament index, Military Expenditure as a share of GDP and Military Expenditure as a share of estimated GDP. Model 1 in Table 3.10 utilizes Diehl (1985)'s under and over-armament index. Immediate effect of INCLUSIVENESS on war time armament is still positive (2.37) and highly significant ( $p < 0.001$ ) and that of UNCOMPETITIVENESS is also still positive (1.99) and highly significant ( $p < 0.001$ ). Model 2 now uses Military Expenditure as a share of GDP. Immediate effect of INCLUSIVENESS on war time armament is still positive (10.5) and highly significant ( $p < 0.001$ ) and that of UNCOMPETITIVENESS is also still positive (10.28) and highly significant ( $p < 0.001$ ). Model 3 also uses Military Expenditure as a share of GDP, but GDP is now estimated to account for missing years. The results are almost identical: Immediate effect of INCLUSIVENESS on war time armament is still positive (10.77) and highly significant ( $p < 0.001$ ) and that of UNCOMPETITIVENESS is also still positive (10.49) and highly significant ( $p < 0.001$ ).

As a further robustness check, I now use an alternative measure of main independent variables - INCLUSIVENESS and UNCOMPETITIVENESS - and switch from Coppedge et. al. (2008)'s operationalization to Miller (2013)'s operationalization. Contestation variable acquired from Miller's (2013) data reflects "the extent and fairness of electoral competition between parties and distinct interests"(Miller 2013,4) and is measured by "the existence of independent political parties, the freedom of electoral competition, the extent of intra-governmental constraints, legislative membership by opposition parties, and the closeness of national votes". For ease of interpretation, I normalize both variables to vary between 0 and 1 and following this step I reverse contestation variable so that higher values mean lower levels of contestation and rename it UNCOMPETITIVENESS. Miller's (2013) data measures inclusiveness by suffrage and electoral turnout in regular elections<sup>11</sup>. Since these variables are acquired from a new dataset, a new set of Aike Information Criterion (AIC) tests are conducted to select the lag-length of the Error Correction Model and

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<sup>11</sup> Miller (2013)'s dataset goes as far as early 1800s, however, for the analysis at hand, this time coverage cannot be exploited as a result of the problems associated with the Correlates of War military expenditure data for country-years before 1950. Correlates of War project's military expenditure dataset is originally intended to measure the capability of a state along with other five indicators, however, use of each of the six indicators on its own has idiosyncracies that limit cross-temporal comparability and the authors warn that the raw data in time-series analyses should be used with caution as a result of conversion problems. National Material Capabilities Data Documentation Codebook version 4.0 indicates that the data for the post-World War II period is standardized from conversion rates available from International Monetary Fund and standardization of previous figures are left for future revisions of the project, data points from 1950 and onwards are utilized throughout the project. For complete discussion of the cross-temporal comparison problems see National Material Capabilities Data Documentation version 4.0 Codebook pp. 20-25 available at [http://www.correlatesofwar.org/COW2%20Data/Capabilities/NMC\\_Codebook\\_v4\\_0.pdf](http://www.correlatesofwar.org/COW2%20Data/Capabilities/NMC_Codebook_v4_0.pdf) (Reached on 15.02.2014).

Table 3.10: ROBUSTNESS TESTS WITH VARIOUS DEPENDENT VARIABLES

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
$\Delta Inklusiveness_{A,t}$	0.09*** (0.01)	1.15*** (0.08)	1.15*** (0.08)
$\Delta Uncompetitiveness_{A,t}$	0.09*** (0.01)	1.14*** (0.06)	1.23*** (0.06)
$\Delta Inklusiveness_A \times \Delta War_{A,B,t}$	2.28*** (0.44)	9.36*** (2.60)	9.62*** (2.64)
$\Delta Uncompetitiveness_A \times \Delta War_{A,B,t}$	1.90*** (0.28)	9.15*** (1.54)	9.26*** (1.56)
$\Delta War_{A,B,t}$	-0.15 (0.16)	0.61 (1.16)	0.59 (1.18)
$Inklusiveness_{A,t-1}$	0.06*** (0.00)	0.28*** (0.02)	0.32*** (0.02)
$Uncompetitiveness_{A,t-1}$	0.04*** (0.00)	0.49*** (0.02)	0.52*** (0.02)
$Inklusiveness_{A,t-1} \times War_{A,B,t-1}$	0.04 (0.26)	-1.16 (1.42)	-0.66 (1.42)
$Uncompetitiveness_{A,t-1} \times War_{A,B,t-1}$	-0.16 (0.19)	-1.23 (1.08)	-0.88 (1.08)
$War_{A,B,t-1}$	-0.08 (0.08)	0.46 (0.52)	0.43 (0.53)
$Diehl Index_{A,t-1}$	-0.20*** (0.00)		
$Mil. Exp./GDP_{A,t-1}$		-0.29*** (0.01)	
$Est. Mil. Exp./GDP_{A,t-1}$			-0.32*** (0.01)
<i>Constant</i>	0.06*** (0.00)	0.96*** (0.03)	1.01*** (0.03)
Observations	942,423	869,344	873,305
R <sup>2</sup>	0.12	0.16	0.17
# of Clusters	37,216	35,906	36,096

Standard errors corrected for clustering by dyad are in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

the AIC results indicate that the new variables require a partial adjustment ECM framework as follows <sup>12</sup>:

$$\Delta Ln(Y_{A,t})^{\text{Partial Adjustment}} = \phi Ln(Y_{A,t-1}) + \beta_0 + \sum_{i=1}^k \Delta \mathbf{x}_{i,t} \gamma_i + \varsigma_{i,j} + \tau_t + u_{i,t} \quad (3.8)$$

where  $Y$  is still the military expenditure of nation  $A$  in year  $t$ ,  $\mathbf{x}_A$  is a vector of independent variables,  $\phi$  is the coefficient of the Error Correction Term,  $\varsigma_{i,j}$  is the unobservable dyad specific time invariant effects and  $\tau_t$  is the unobservable time specific effects with capture common shock to military spending for all dyads and  $u_{i,t}$  is the i.i.d disturbance term. The results with the new measures are presented at Table 3.11. As can be seen at Table 3.11, the immediate effect of UNCOMPETITIVENESS on war time military spending (UNCOMPETITIVENESS|WAR) is positive (0.64) and highly significant ( $p < 0.001$ ). This confirms the robustness of the first comparative statics prediction presented at PROPOSITION 1 that uncompetitive regimes bring higher effort than competitive regimes. Moreover, the immediate effect of INCLUSIVENESS on war time military spending (INCLUSIVENESS|WAR) is again positive (0.46) and highly significant ( $p < 0.001$ ) as predicted by PROPOSITION 1. Similar to previous discussion, in the absence of a war, increases in inclusiveness (INCLUSIVENESS| ~WAR) has a positive, significant but small effect (0.12,  $p < 0.001$ ) whereas increases in Uncompetitiveness (UNCOMPETITIVENESS| ~WAR) has a positive, significant but a relatively larger effect (0.24,  $p < 0.001$ ).

### 3.5.2 Egypt's Military Expenditure during Six Days War (1967) and Yom Kippur War (1973)

To illustrate the causal processes that underlie the formal model's comparative statics predictions and the associated quantitative findings, I analyze Egypt's war effort during Six Days War (1967) and Yom Kippur War (1973). Egypt's military effort during both wars poses a puzzle: Despite the similarities in economic resources available to both leaders and threat environment in 1967 (Gamal Abdel Nasser) and 1973 (Anwar Sadat), Egypt posed a devastating challenge to Israeli army in 1973, but fell easy prey for Israel in 1967 Six Days War. After 1973 war, Ariel Sharon, an

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<sup>12</sup> Aike Information Criteria is conducted to test how good the fit is across the different lag length of covariates within the model. AIC is calculated as  $2k - 2\ln(L)$  where  $-2\ln(L) = \ln(RSS/N)N$  where  $RSS$  is the deviance for the linear model  $k$  is the number of parameters in the model and  $N$  is the sample size. Our Aike Information Criterion (AIC) results indicate that partial adjustment ECM model (with AIC of -114,802) outperforms General ECM model specification (with AIC of -64,167).



Table 3.11: WAR EFFORT AND ALTERNATIVE MEASURES FOR INCLUSIVENESS & CONTESTATION

$\Delta$ Military Expenditures $_{A,t}$	<i>Model I</i>
$\Delta$ Inclusiveness $_{A,t}$	0.12*** (0.01)
$\Delta$ Uncompetitiveness $_{A,t}$	0.24*** (0.01)
$\Delta$ Inclusiveness $_A \times \Delta$ War $_{A,B,t}$	0.33** (0.13)
$\Delta$ Uncompetitiveness $_A \times \Delta$ War $_{A,B,t}$	0.41*** (0.10)
$\Delta$ War $_{A,B,t}$	-0.30*** (0.11)
Military Expenditures $_{A,t-1}$	-0.32*** (0.00)
Constant	3.33*** (0.04)
Observations	857,629
R <sup>2</sup>	0.27
# of Clusters	31,619
Avg. Observations for Clusters	27.1

Standard errors corrected for clustering by dyad are in parentheses.

\*  $p < 0.10$  , \*\*  $p < 0.05$  , \*\*\*  $p < 0.01$

$\Delta$ Military Expenditures $_{A,t}$	<i>Short-run Effect</i>
Uncompetitiveness $_A  $ War $_{A,B}$	0.64*** (0.09)
Uncompetitiveness $_A   \neg$ War $_{A,B}$	0.23*** (0.01)
Inclusiveness $_A  $ War $_{A,B}$	0.46*** (0.13)
Inclusiveness $_A   \neg$ War $_{A,B}$	0.12*** (0.01)
Observations	857,629
R <sup>2</sup>	0.27
# of Clusters	31,619
Avg. Observations for Clusters	27.1

Israeli commander, indicated that “I have been fighting for twenty-five years and all the rest were just battles. This was a real war” (Gawrych 1996, 76). So why did the military might of Egypt during both wars showed significant variation? The theoretical model expects that that the extent to which the Egyptian ruling coalition has a credible outside option against their leader, hence, the magnitude of the leaders’ reliance on the coalition, plays a crucial role in war-time military expenditure of states. If the coalition’s exit option is credible, the leader is less likely to amass resources to finance their war expenditures. However, if the opposite is true, then the constraints on leaders’ spending decisions are lifted and they can channel more resources for a war effort. Hence, the differential war effort of Egypt throughout both wars can be understood by analyzing how contested were Nasser and Sadat’s rule before and during the wars and how reliant these leaders were for their tenures to the military’s support under the shadow of deposition risk by the top echelons of the army. This factor alone, as we will see, was consequential for generating military expenditure as well as its efficient use through the nuanced competences necessary for the army’s battle effectiveness.

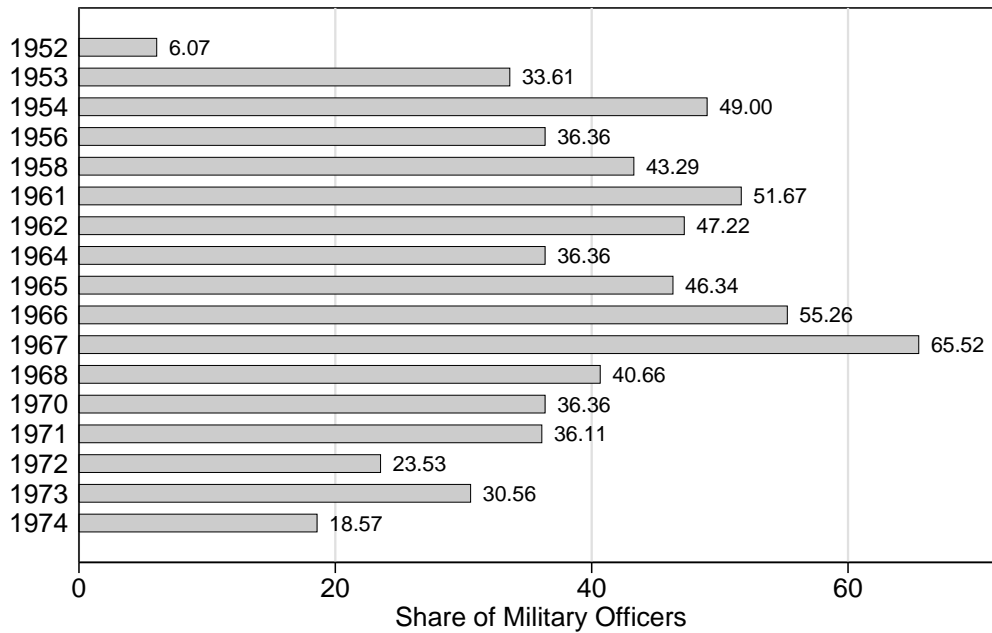
From early 1950s to late 1960s, the Egyptian military was the strongest political institution within the state. The political capabilities of the military were demonstrated by the 1952 overthrow of Egyptian monarch by Nasser and other top officers in the army (Gotowicki 1997). General Abdel Hakim Amer during 1960s started to seek an even increasing role of military in society to increase the reliance of Nasser’s regime survival on the military. In response to Amer’s increasing influence in the civil arena, Brooks (2006) points out that Nasser sought to create alternative sources of power to counter Amer’s efforts and among these was the Arab Socialist Union (ASU) established in 1962. ASU help Nasser penetrate to untapped civilian constituents through rents, including farmers and workers. As such, ASU “represented the regime’s determination to mobilize constituencies that had always been on the margins of political life and that could be expected to support the regime” (Waterbury 1983, 315). As a result, in order to secure his position against the Amer controlled powerful coalition, Nasser sought to receive the support of not only the most powerful elements of the kernel of his coalition but also the larger segments of society. Nasser’s main twist was, however, to decrease the reliance of his survival to, hence, the threats from the military by increasing the social base of his regime through various reforms that includes, but not limited to, subsidized transportation, land reform, minimum wage, welfare legislation, guaranteeing jobs to all university students. Behind his “populist-nationalist” program, Nasser mobilized a broad middle-lower-class support coalition (Hinnebusch 1981, 442). As a result, Nasser’s effort of keeping the important classes of the society satisfied to by-pass the military’s role for his survival left him with less to allocate for the coming war with Israel. As Amin Huwaidi, Nasser’s war

minister at the time, pointed out, the Egyptian administration was facing the “three-dimensional problem: defense, investment for economic development and expenditures intended to stabilize the regime. The difficulty is balancing the three and finding a way to limit expenditures” (Barnett 2012, 80).

As the military’s important position in Egyptian politics started to fade along with the erosion of its social base after the humiliating defeat of the Amer-led Egyptian army in 1967, military’s role in Nasser’s and his successor Sadat’s survival calculus almost disappeared. Following 1967 defeat, Egypt experienced two moments of demilitarization. The first came in 1968 and the second came soon after a series of purges with the “Corrective Revolution” of May 1971 (Cooper 1982, 204). After Nasser’s death in 1970, Sadat started his tenure with a thoroughly purged military and the demilitarization of the coalition started to continue during his tenure. The differential role of military in the Egyptian polity between the two periods is starkly visible in the number of military officers serving on the cabinet as can be seen at Figure 3.2: Whereas in 1967, military officers made up the 65.5 percent of the cabinet, in 1972, it decreased to only 23.5 percent. By January 1972 Cabinet, the military declined to a level below any other cabinet since 1952 and it continued to decline with the only exception of 1973 – which was a war cabinet. Along with this quantitative decrease, the cabinet posts the military came to occupy became more technical and less political and became directly related to the nature of military expertise. A comparison of the total number of pure military officers and technocrats presents an unambiguous picture: Of 131 ministerial positions during the Nasser rule, 20.6 percent were officers and 13.6 were technocrats, whereas during Sadat rule, the percentage of pure officers decreased to 7.5 percent and that of technocrats to 7.5 (Cooper 1982).

As a result, with the military’s gradual and consequential decrease in politics during the post-1967 era brought about a reshuffle of the distribution portfolio of Nasser in favor of military expenditures and the leaders’ (post-1967 tenure of Nasser and Sadat) decreasing reliance on the military elite decreased the incentives of Nasser and more significantly for Sadat to compete for loyalty of the society in general, which had a consequential effect on the military expenditure of Egypt. After elimination of the ASU by Sadat, as result of its increasing role as a threatening power center to the regime survival, there remained no real institutional vehicles either for opposition to, or support for, the government (Ryan 2001). Whereas during the golden days of Gen. Amer and his clique in domestic politics, Egypt’s military expenditure in the year of Arab-Israeli war (1967) was 6.67 percent of total gross national production – decreasing from 7.13 in 1966, however, when the domestic balance of power tilted against Amer, and after the subsequent purges, Egypt increased its military expenditure to first 8.94 percent in GNP in 1968, 9.59 in 1969, 12.96 in

Figure 3.2: MILITARY AND CABINET IN EGYPT 1952-1974



Source: Cooper (1982)

1970, 13.7 in 1971, 14.62 in 1972 and 15.06 percent in the year of Yom-Kippur War (US Arms and Disarmament Agency 1973). The steep increase in defense burden was covered in the expense of investment, which as a consequence, declined from 18 percent of the GNP to only 12 percent (Sheffer 1978). In addition to regular defense budget, Egypt used an extra emergency fund which totaled to £E 60 million (\$78.3 million-constant 2009) in 1967 and £E 399 million (520.9 million-constant 2009) in 1973 (Efrat 1983). This emergency fund as a separate account amounted to 5 percent of the total military spending in 1967 and 10.3 percent of the total military spending in 1973<sup>13</sup>.

The domestic competition fought against Amer, not only plagued the Nasser rule's ability to channel resources against the Israeli army, but also prevented it to use the military competence the state had in the first place as evidenced in faulty strategic assessment during the May-June

<sup>13</sup> Exclusive of the defense expenditure figures, the Soviet military aid and Arab aid were very important: Egypt received \$1262.52 million (est. constant 2009) Soviet Aid between 1963-1966 and \$11672.23 million (est. constant 2009) Soviet Aid between 1967-1973 (Efrat 1983, 449). It also received \$266 million aid annually from oil-rich Arab States (Kuwait, Libya and Saudi Arabia) which aimed at compensating the revenue lost due to the closure of the Suez Canal, the drop in the tourism and the capture of the Sinai oil fields as a result of the 1967 war. The Khartoum Agreement, however, covered only about one-half of Egypt's capital imports during these first post-1967 years; the net loss was still \$165 to \$185 million (Barnett 2012, 114).

crisis, redundancy in chain of command and Amer's political appointments of officers who had proven incompetent eleven years ago during the Suez crisis (Brooks 2006). Among these, the most prominent was Amer's disregard of the Nasser's warning on June 2 – three days prior to the Israeli attack on Egyptian airbases - of an anticipated Israeli attack against the Egyptian air forces within the next seventy-two hours. The inactivity on the part of Amer let Israel to destroy virtually the whole Egyptian Air Force, which ended with this terminated 311 inactive aircrafts in 13 different airbases, that were also rendered inoperable (Yossef 2009).

### 3.6 CONCLUSIONS

This chapter has shown how contestation and inclusiveness affect leaders' ability to generate military spending during an interstate conflict. In doing so, it introduced a new second-image formal theory and tested the implications of the theory and confirmed that the two seemingly contradictory findings within the defense expenditure literature are simultaneously explained by this parsimonious theoretical model. Whereas inclusiveness feature of a polity explains the *arsenal of democracy* phenomenon – the proposition that democracies outspend their opponents during an interstate dispute – the contestation feature explains the *arsenal of autocracy* and relabels the phenomenon that autocracies can outspend their enemies as the *war chest of autocracy*. Statistical evidence suggests that inclusiveness and uncompetitiveness increases the ability of states to outspend their rivals and uncompetitive regimes are slightly more advantageous in armament than inclusive regimes. We also observe that inclusive regimes and uncompetitive regimes experience decreases in their armament levels as the war continues, however, this temporal effect is empirically more dramatic for inclusive regimes than uncompetitive regimes. This also suggests that the *war chest of autocracy* is slightly more robust than the *arsenal of democracy* when a war starts and this difference is more pronounced as the war continues. These results hold even when we control for the effect of a vast variety of explanations suggested within the literature.

The implications of the empirical analysis extend beyond the literature on war-time defense expenditures. The empirical findings suggest that lower levels of peace-time defense expenditure are explained by contestation feature of polities: whereas inclusiveness leads to an incremental increase in democrat's defense expenditure allocation, increases in contestation of a polity leads to a significant amount of decrease in this decision. As a result, the insights ingrained in Kant's *Perpetual Peace* on demilitarizing aspect of democracy finds its manifestation within the contestation feature of polity.

The study also introduces a novel approach to testing the relationship between various covariates and war-time defense expenditures. The existing approaches within the literature fit their data to a seemingly inappropriate stochastic model and increase the rigidity of their estimation by several unjustified assumptions about the cross-temporal effect of each covariate. In this study, I utilize an error correction framework and take into account not only the immediate effect of each variable, but also their cumulative effects distributed across time, hence, uncovered the time-specific aspects of the data, that were unavailable in previous studies. Future studies should generalize the error correction model and relax the constant variance assumptions about the error term and model whether variability in war effort is higher around a certain average for some regime types, hence, whether they are inherently less predictable as a result of the features of their domestic institutions and other domestic level variables.

During this research, I faced several major problems in the existing Correlates of War Military Expenditure Dataset. The observations before 1961 are hard to compare across countries and over time due to problems caused by improper exchange rate conversions. Moreover, for various cases, an interpolation method was used even though actual figures are retrievable from historical statistics. As a result, future research on extensions in the temporal coverage of the data will bring efficiency gains to the empirical model.

In an analytical narrative framework, Rosenthal (1998, 72) shows the presence of a free-riding problem between the crown and elites in his studies of 17th and 18th century France and Britain. In both countries, the fiscal authority of both the crown and elites implied different levels of war spending. When the crown was dominant in fiscal resources, the elite decreased their contribution to war spending for wars crown wants to initiate. Future extensions of the game theoretical model should account for this stackelberg-like interaction. The pay-off of doing so will illuminate give us a more nuanced understanding of how resources separately owned by the leader and the coalition affect nations' war expenditure and conflict initiation decisions.

A natural question extending from these analysis implies another important question: How does this militarization capacity driven by inclusiveness and contestation features of democracy shape states' propensity to win wars? Now I turn to this question in the following chapter.

## Chapter 4

# THE MACHIAVELLIAN MOMENT: EXPLAINING WAR OUTCOMES

### 4.1 INTRODUCTION

IS DEMOCRACY A FOREIGN POLICY LUXURY THAT STATES CANNOT AFFORD DURING WAR TIME? There is a centuries-old debate in diplomatic history, philosophy as well as political science on the relationship between regime type and military effectiveness. Some argued that democracy is a liability when it comes to the fighting prowess as a result of the domestic constraints that leaders facing and their effect on leaders' long-term foreign policy plans:

I will have no difficulty in saying: it is in the leadership of the foreign interests of society that democratic governments seem to me decidedly inferior to others. ... Foreign policy requires the use of almost none of the qualities that belong to democracy and, on the contrary, demands the development of nearly all those qualities that it lacks. ... [O]nly with difficulty can democracy coordinate the details of a great undertaking, settle on one plan and then

follow it stubbornly across all obstacles. It is little capable of devising measures in secret and patiently awaiting their result. These are the qualities that belong most particularly to a man or to an aristocracy. ... If, on the contrary, you pay attention to the natural defects of aristocracy, you will find that the effect that these defects can produce can be felt hardly at all in the leadership of the foreign affairs of the State. ... In foreign policy, it is very rare for the aristocracy to have an interest distinct from that of the people. The inclination that leads democracy in policy matters ... to abandon a long developed plan for the satisfaction of a momentary passion, clearly revealed itself in America when the French Revolution broke out (Tocqueville 2010[1835], 369-372).

Alexis de Tocqueville in *Democracy in America* also noted that “two things that a democratic people will always have a great deal of difficulty doing: beginning a war and ending it” (de Tocqueville 2010[1840], 1160). Not only did he see the democratic foreign policy making “inferior to others”, but also pointed to democratic leaders’ contested ability to plan and implement a consistent foreign policy strategy as the main obstacle to victory in a war: Momentary passion of people and its implications on democratic leaders’ survival instincts cause leaders to abandon the optimal long-term plans in favor of the vitality of the present, a dysfunction which autocracies have always been considered immune to. Alexander Hamilton in *The Federalist Papers* (No: 8, 23, 70) had considered these repercussions broadly for the new born United States and believed that the powers and functions essential to the common defense - from raising armies to directing operations - should exist within the executive body without any limitation. In the mirror image of these concerns - the uncontested exercise of executive power and its role on military effectiveness, Machiavelli (1988 [1532], 35), inspired from Pope Julius II, the King of France Louis XII and the King Ferdinand of Spain, instructed his *Prince* Lorenzo de Medici to expending revenues parsimoniously in a way that both keeps nobles loyal during peace time and the war chest full for a future battle.

Concerns of Tocqueville in *Democracy in America*, Hamilton in *the Federalist Papers* and, Machiavelli in *Prince* were not destitute of foundation. The collapse of Second French Empire and deposition of Louis Napoleon III after the spectacular defeat in Sedan (1871) by Otto von Bismarck’s army is an archetype of all the concerns raised by these philosophers of different historical epochs. Bismarck’s ability to divide and control the domestic opposition and greater ability to repress protests in the preceding years had given him an unparalleled range of maneuver to plan and discretionize government resources for military expenditures. Without this discretionized budget and the subsequent armament, German armies might have been compelled to retake Rhine after it had been occupied and could not confine the war to French frontier. In France, the



domestic balance of power was favoring the opposition in *Corps Legistalif* – the legislative body – over Louis Napoleon. Not only did the parliamentarians reject the army reform necessitated by the need of Napoleon to balance expanding Prussian power, they also sabotaged it along with the opposition press by discounting its advantages and exaggerating its negative consequences. The domestic political advantage of uncontested Bismarck rule against relatively fragile Napoleon rule III and the subsequent Prussian victory contributed to the heated discussions on the military effectiveness of democracies (Taylor 1952; Wright 1960). Authoritative historians on Second Empire underscored the foreign policy success of previous autocratic phase and the humiliations of the new democratic system where the domestic opposition was granted larger concessions. Some retrospectively conjectured that Napoleon III should have reverted back to the pre-1860's closed and repressive order to avoid such a humiliating defeat in the hands of Bismarck (Bury 1964; Williams 1954). Gooch (1963,1) went so far as to state that “Dramatic success in foreign policy were achieved by the emperor [Napoleon III] in the early, authoritarian phase of his rule, while later as he was progressively liberalizing the regime, failures came in rapid succession”. These insights of historians are confirmed in a recent study of the first 800 years of the previous millenium: The empirical evidence shows that succession orders that increased the cost of elite defection (primogeniture - the principle of letting the oldest son inherit power) in European monarchies increased states' ability to survive against external threats and increase their competitiveness in the international arena and by the 19th century, all European monarchies either adopted primogeniture or succumbed to foreign enemies (Kokkonen and Sundell 2014). More recent examples of Nazi Germany, Soviet Russia that raised two of the most robust military forces during World War II as the major power engines further illustrated the autocratic military effectiveness and gave further credence to the autocratic advantage view. On the opposite end, recent empirical literature in IR has drawn a more optimistic picture on the regime type-military effectiveness nexus and pointed to the ability of democracies' war-time militarization with a large economic might and democratic culture and the role of it in better fighting capacity of individualized soldiers on the battlefield.

So are democracies better than autocracies when it comes to military effectiveness? The contemporary scholarly empirical literature indicates that the answer to this question is quite mixed and they vary from “Yes, they are” (i.e. Lake 1992, Reiter and Stam 2003), “Yes, but it hardly matters” (Desch 2002) to “No, they are not” (Downes 2009, Henderson and Bayer 2013) and “No, they are even worse” (Beckley 2010). The literature finally indicated both democratic and autocratic advantage (Reiter and Stam 2009). As a result, in the empirical literature, democracy's record as an agent of military effectiveness is a matter of dispute. A much clearer understanding of

the relationship between democracy and war-winning can be obtained by constructing a theory upon the dimensions that constitute democracy. Since democracy is a multi-faceted concept, we should pay attention how these different dimensions affect incentives shaping leaders' optimization problems given their aim of reselection in future periods. The timeless advices of Machiavelli, the anxieties of de Tocqueville and Hamilton and optimism of the recent literature (Lake 1992, Reiter and Stam 2003) necessitates a disaggregation of democracy into Dahl's (1971) dimensions of contestation and inclusiveness as separate categories.

Drawing upon the selectorate theory of war, I construct a formal model of a domestic political system in which the inclusiveness and contestation dimensions are included in the theory separately. The model shows that contestation and inclusiveness features of democracy pull war-winning probabilities of states to the opposite directions: whereas the relatively less competitive polities are more likely to win the wars they become involved and address the insights of the pessimists and explain autocratic triumphalism, inclusiveness dimension pull the war-winning propensity upward and give us insights on why democracies also win wars they become involved. Predictions from this model are tested using a dataset covering all the dyad-years from 1815-2007, drawing on a recent data from Miller (2013) to measure both dimensions. Statistical analyses find that contestation is a liability and the lack thereof a blessing whereas the reverse is true for inclusiveness dimension and corroborate Reiter and Stam (2009)'s curvilinearity hypothesis with a parsimonious model and simultaneously explains *Democratic Triumphalism* and *Autocratic Triumphalism*. The findings also addresses Desch (2002)'s concern that regime type – measured as a composite index – hardly matters. The opposing effects exerted by the two dimensions explain why a composite index had a small magnitude in previous research.

## 4.2 THE DEBATE

Focused on the problem of how domestic institutional settings shape the foreign policy outcome, the literature on democratic triumphalism has generated two main strands of arguments and associated with these, several challenges. The first strand, focusing on a selection effect, argues that democracies, when become involved in a dispute, are more likely to escalate the dispute to a war level if they are certain of victory (e.g. Bueno de Mesquita et. al. 1999, Reiter and Stam 2003). As a result of this censoring in the sample, democratic states are hypothesized to be more likely to win wars once they decided to become involved in one. In addition to this ex ante advantage, the second strand argues for an ex post advantage, that is, democracies once they become involved

in a war, are more likely to fight more effectively than autocratic states (e.g. Bueno de Mesquita et. al. 1999, Reiter and Stam 2003, Lake 1992). The second strand recently expanded on to the relationship between regime type and war-time alliance composition to explain the regime type-war outcome nexus (Choi 2004, Reed 1997, Bennet 1997).

The first strand focuses on a selection effect and attributes democratic war success to careful conflict initiation decision. Selection effect directly refers to the ability of states to make optimal concessions in proportion to the might of the opponent. When the change-seeking party is more powerful than the target, the target would accept more concessions to appease the challenger, which would be preferable to a defeat in a war. Similarly, if the target is the more powerful party, it would resist the challenge and refuse making concessions, given that it can avoid making any concession by fighting and winning. The aggressor recognizes this fact *ex ante* and decides not to attack and prefers the status quo to making a demand. Reiter and Stam (2003) argue that the risk acceptance behavior and war outcome estimate accuracy are responsible for democrat's war success. Not only are they more risk averse than both mixed regimes and dictatorships as a result of their post-war career concerns, they also require a higher threshold for war winning, which necessitates a careful evaluation of odds of winning. The ability of free press and opposition parties to expose the flaws in government policies, hence, the relatively open marketplace of ideas decreases the chances for erroneous policies. Moreover, less politicized bureaucracies in democracies produce higher quality, less biased information. As a result, democracies, risk averse and accurate in their winning evaluations, avoid unnecessary foreign policy adventures and win the wars most of the time once they decide to become involved in one. Non-democracies, however, are worse decision-makers, hence, can initiate wars that can fail most of the time.

In addition to these *ex ante* advantages of democracies, the literature's main focus is on the war-fighting ability given a state selects itself into a war. This strand provides five different causal mechanisms that link domestic political institutions and war outcomes. The initial empirical study by Lake (1992) argues that democracies have a greater ability to generate larger government budgets that will help them outspend their non-democratic rivals. Lake's (1992) argument is based on an indirect mechanism that links legitimacy of democratic governments to better extraction ability from the society and a well economic management, which in turn, generates more wealth within the economy. As a result, higher wealth and tax resources allow governments to generate a higher amount of budget spending for war-time military expenditures, which, in turn ensures victory. Since Lake's (1992) influential analysis of how regime type affects war outcome, a new literature developed over whether, how and why regime type affects various phenomena related to war fighting capacity. Since then, democratic war making capacity and war outcomes

have been an issue of contention among scholars and the literature has been divided into two broad camps: triumphalists and their critics. Lake's study was criticized on both theoretical and empirical grounds. First, the causal arrow that links democracy to wealth is a two-way one. To the extent that wealth empowers liberal elements and promotes democratization, it confounds the war winning capacity of democratic states and renders the relationship between democracy and war outcome spurious. Indeed in a 2003 article, Lake accepted the reverse causation that "countries with higher per capita income are more likely to be democratic, suggesting that the relationship between democracy and victory may be spurious" (Lake 2003, 164) and the democratic war-winning thesis is worthy of further investigation. As a result, Lake's theory focusing on an indirect effect of democracy on wealth and wealth's effect on war making does not allow us to clearly define what direct effect democracy should have on war winning odds of states. Beckley (2010) provides further support for the confounding role of wealth on the relationship between democracy and war-winning and found that when economic development is taken into account democracy seems to degrade war-fighting capability and that the conventional military dominance of Western democracies stem from their superior economic development rather than political institutions<sup>1</sup>. Moreover, it does not inform us on the independent effect of regime type on war outcomes in a *ceteris-paribus* clause, that is, holding the wealth constant for two states, the theory is unclear as to whether a more democratic state should prevail over a less democratic one. In addition to these problems, Desch (2002) as well as Henderson and Bayer (2013) raised a number of problems in the research design of the study including coding errors for World Wars and Arab-Israeli wars on the top of the unnecessary omission of some of the cases from the sample that existed in earlier literature<sup>2</sup>.

A second causal mechanism in the literature pioneered by Reiter and Stam (2003) rejects the democratic triumphalism due to inherent economic advantages (Lake 1992) but emphasizes the role of political culture inherent in democracies and its relation to battlefield performance of soldiers. They argue that when two equally matched armies meet in battle, the one drawn from a democratic society will outperform the one drawn from a closed society. This is because serving legitimate governments enables soldiers to fight with a higher spirit. Moreover, the emphasis on the rights of individuals increases individual initiative for all ranks in democratic armies. Lastly,

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<sup>1</sup> Beckley's (2010) study differs widely from the original analyses presented in Lake (1992). The dependent variable is the logged difference between attacker's battle casualties and defenders battle casualties. It is not clear whether Beckley (2010)'s finding should have implications on war winning probabilities.

<sup>2</sup> Henderson and Bayer (2013) brings attention to the discrepancy of the sample between Lake (1992)'s study, which analyzes 26 wars, with a comparable study –Rosen (1972) – published 20 years previously and includes 40 wars.

soldiers fighting for autocracies are more likely than vice versa to surrender to democratic enemies. They found that superior leadership and initiative helped democratic armies triumph on battlefield. The subsequent studies casted doubts on the validity and reliability of the results presented in Reiter and Stam (2003)'s findings. Desch (2002) notes that the main data source from which the variables measuring leadership and initiative in battlefield are drawn has been largely unreliable<sup>3</sup>. Subsequent studies by Downes (2009) and Henderson and Bayer (2013) further questioned the overall empirical strategy of Reiter and Stam (2003) and showed that the democracy does not have a statistically significant effect on war winning. A 2009 study by Reiter, Stam and Downes found that the relationship between democracy and war winning is a curvilinear one where only highly autocratic and highly democratic states are more likely to prevail at a given war whereas mixed regimes are incompetent in their fights.

With a novel focus on leader survival, Bueno de Mesquita et al.(1999) introduced a causal mechanism, which directly connects the political processes to war-time defense spending channels and consequently to war outcome. The theory is able to explain how the inclusiveness dimension of democracy - the size of the winning coalition, the size of the group that chooses the executive body and holds it accountable - affects leaders' decision on whether to allocate the resources to key supporters of the regime in the form of direct resource transfers or channel the available resources to defense spending. Their formal model shows that an increase in the inclusiveness dimension of a polity pushes leader to seek re-selection through provision of public goods, thus, a higher level of war effort during a dispute, whereas the reverse necessitates provision of direct resource transfers, which leaves fewer resources for reciprocating or attacking an adversary. Even though it is popular within the literature, the study had several doubtful assumptions and related to these assumptions, empirical anomalies regarding the propensity of states to win wars. In addition to anomalies in its predictions about war onset behavior as well as war time defense expenditure, war outcome literature also directs us to a different direction. For war outcome, the selectorate account of war predicts democratic triumphalism, the hypothesis that democracies win wars more often because of the effort advantage induced by democratic institutions. However, Reiter and Stam (2009) show that the relationship between regime type and victory is a curvilinear one, that is, only the left and right tails of autocracy-democracy continuum fight better at war, democracies being only very slightly better than autocracies whereas

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<sup>3</sup> The main database these variables are generated were collected by the Historical Evaluation and Research Organization (HERO). A 1984 evaluation of the database by the US Army Military History Institute called the reliability of the data into question after analysis of randomly selected 8 cases and associated with these, 159 codings. 106 of these were found to be in error, another 29 questionable and only 24 (15 percent) correct. For further problems and details in the HERO dataset, see Desch (2002).

mixed regimes – anocracies – being the worst of all. In addition to these empirical anomalies, the model has several implausible assumptions: First, the theory assumes that the game starts with a dispute, that is, both leaders find themselves in dispute; hence the model does not have implications for pre-war strategies of keeping winning coalition satisfied and its subsequent effect on war-effort level. Secondly, the theory assumes that the resources are one way or another are completely distributed. In autocracies, the theory in different applications predicts higher levels of kleptocracy – leaders’ ability to retain some of the resources for themselves – in autocracies (Bueno de Mesquita et. al. 2003, Ch. 4), thus, the assumption of full consumption of resources to public/private goods is not tenable at least in small coalition polities during both war and peace time. Thirdly, Bueno de Mesquita et. al. (1999; 2003; 2004) argues that leaders in autocracies are not as potent as democracies in their war-effort generation, because the former can devote resources to private benefits for supporters to compensate for failures in foreign policy. It is, however, neither plausible to allocate already-spent resources to “compensate failures” in foreign policy in the form of private goods nor the best response for the leader given that she accumulates these resources against future negative shocks. Correcting for these erroneous assumptions, as I show below, draws a quite different picture on the relationship between regime type and war outcome from the original model.

### 4.3 PREDICTIONS OF THE MODEL

Once  $B$  attacks, the Leader  $A$  and  $B$  choose a military spending  $g_i^* = n_i\alpha_i R_i + W_i\mu_i - \frac{1-\beta_i\Psi_i}{\Omega\beta_i \log(v)}$ . The probability that  $i$  wins is  $\pi_i(g_i, g_j)$  where  $i \neq j$ . As a probability, the function satisfies the following condition:  $0 \leq \pi_A(g_A, g_B) = 1 - \pi_B(g_A, g_B) \leq 1$ . Moreover,  $A$ ’s winning probability is increasing in  $A$ ’s military expenditure ( $g_A$ ) and decreasing in  $B$ ’s military expenditure ( $g_B$ ). Proposition 3.1 presents the optimal defense expenditure levels for each state in the model.

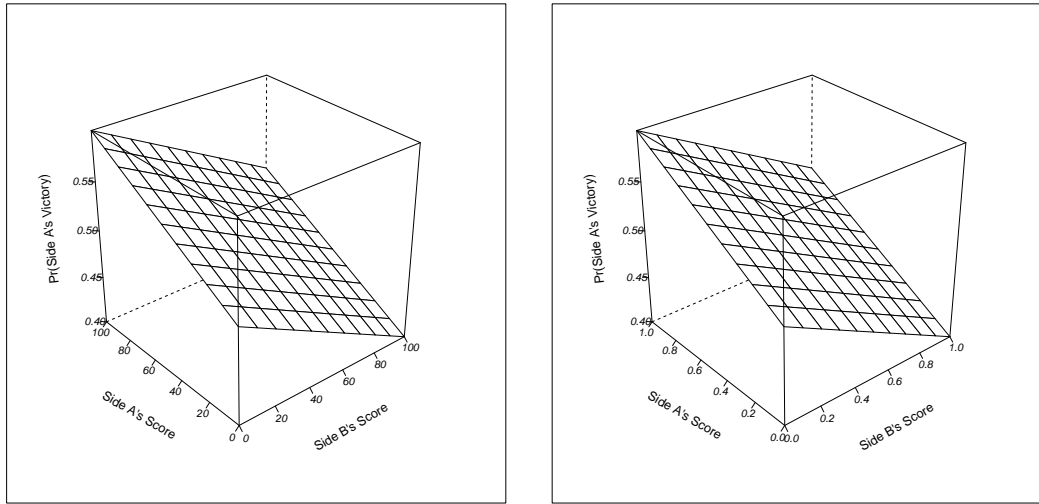
**Proposition 4.1. (Endogenous Winning Probability)<sup>4</sup>:** *Given  $g_i^* = n_i\alpha_i R_i + W_i\mu_i - \frac{1-\beta_i\Psi_i}{\Omega\beta_i \log(v)}$ , the probability that state  $i$  wins  $\pi_i(g_i^*, g_j^*) = \text{Max} [0, \text{Min} [1, \frac{1}{2} + \Omega(g_i - g_j)]]$  is given by*

$$\pi_i(g_i^*, g_j^*) = \frac{1}{2} + \Omega(n_i\alpha_i R_i + W_i\mu_i - n_j\alpha_j R_j - W_j\mu_j) - \frac{\frac{1}{\beta_i\Psi_i} - \frac{1}{\beta_j\Psi_j}}{\text{Log}(v)}$$

The comparative statics predictions show that when there is an interstate dispute, the financial resources are appropriated differently in democracies and autocracies. Even though the

<sup>4</sup> Proposition 2.1 in **Chapter II: The Opportunity-Willingness Theory of Conflict Processes**

Figure 4.1: INCLUSIVENESS, CONTESTATION AND SIDE A'S VICTORY



(a) Inclusiveness (Theoretical Prediction)

(b) Uncompetitiveness (Theoretical Prediction)

**Notes:** Theoretical predicted probabilities are acquired by setting  $n_i = 1$ ,  $n_j = 1$ ,  $R_i = R_j = 100$ ,  $\Omega = 0.01$ ,  $\mu_i = \mu_j = 1$  and the inclusiveness parameters ( $W_i$  and  $W_j$ ) are set equal for contestation analyses and the contestation parameters ( $a_i$  and  $a_j$ ) are set equal for inclusiveness analyses. As every other formal model, this model is, too, an abstract description of reality. As a result, the central attention in these graphs should be given to the direction of predicted relationship between A's and B's regime type dimensions and how each dimension in each state contributes to their military effectiveness vis-à-vis the opponents and reader is advised not to infer what the magnitude for each dimension for each party might be. This is an issue I take in the empirical section. This figure is intended to visualize how parameters affect war outcome probabilities and as for every theoretical model, substantial effect of each parameter is an empirical question.

democratic regimes have the advantage of war finance through the “common good” mechanism, autocratic regimes have the advantage of resource accumulation as a result of their leader’s ability to keep a handsome portion of resources undistributed for war. This has an implication on who wins a given war. The model directly predicts that holding other conditions constant, uncompetitive regimes are more likely to win the wars they become involved as a result of the accumulation effect and inclusive regimes are more likely to win as a result of the common good mechanism. Hence, I expect several propositions to fit the data: the defining feature of autocratic triumphalism is the lower levels of contestation and the defining feature of democratic triumphalism is higher levels of inclusiveness. As a result, uncompetitive polities and inclusive polities are more likely to prevail in wars they become involved. The model’s predictions about state A’s victory is visualized in Figure 4.1 . Panel *a* in Figure 4.1 shows model’s predictions regarding the inclusiveness dimension of the polity. The model essentially predicts that as the inclusiveness of regime A

increases (holding other variables constant) from its minimum to maximum and holding opponent's inclusiveness score at 0, its probability of winning increases from 50 percent to 60 percent. Moreover, an increase from regime B's inclusiveness score from its minimum to maximum and holding A's inclusiveness score at 0, A's probability of winning decreases from 50 percent to 40 percent. As a result, a simultaneous shift of regime A's inclusiveness score from minimum to maximum and regime B's score from maximum to minimum leads to an overall 20 percent increase in probability of winning a given war. Panel *b* in Figure 4.1 shows model's predictions regarding the contestation dimension of the polity. Similar to the inclusiveness feature of the polity, a simultaneous shift of regime A's uncompetitiveness score from minimum to maximum and regime B's contestation score from maximum to minimum leads to an overall 20 percent increase in the probability of winning a given war. As a result, I test the following hypotheses:

*Hp 3: Decreases in the level of contestation in a polity increases the probability of victory of the nation.*

*Hp 4: Decreases in the level of contestation in the opponent state decreases the probability of victory of the nation.*

*Hp 5: Increases in the level of inclusiveness in a polity increases the probability of victory of the nation.*

*Hp 6: Increases in the level of inclusiveness in the opponent state decreases the probability of victory of the nation.*

In the next section, I design the procedures to test the implications of the theory on war winning propensity of states within a directed dyadic setting.

## 4.4 RESEARCH DESIGN

### 4.4.1 Data and Sample Space

On a directed dyadic level, I assess the role of inclusiveness and contestation on war outcomes. The unit of analysis is the directional dyad-year and each state is paired with all the contemporaneous states they are fighting given a war. In order to analyze the dimensions of polity-war outcome nexus, I utilize Correlates of War project's classification of wars (Sarkees and Wayman 2010) and code the dependent variable as 2 if the state in side A wins a given war, 1 if the outcome is a draw and 0 if the side A is defeated. The dataset covers all the wars from 1816 to 2007.



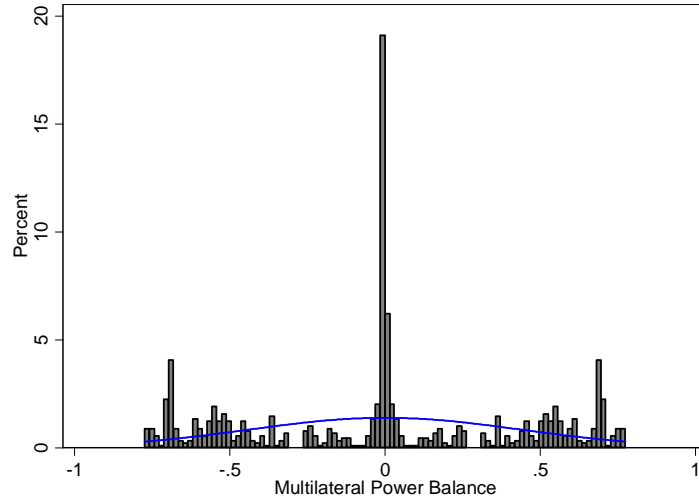
Since the theory is directly related to the two dimensions of a polyarchy - inclusiveness and contestation - I utilize an existing dataset (Coppedge et al. 2008) which conducts factor analysis from the existing 13-15 widely used democracy indicators from Banks (1979), Bollen, Jackman and Kim (1996), Freedom House, Polity IV, Vanhanen (1990), Cheibub and Gandhi (2004), Cingranelli and Richards (2004). The data is available for the period over 1950-2000 and covers 199 countries. Contestation variable reflects the ability of the citizens (or the winning coalition of the leader) to control the leader with a credible exit option. If the leader does not face a serious domestic deposition risk due to incompetent contestation in an uncompetitive arena, the members of the winning coalition will not be able to credibly threaten the leader to defect to a challenger. Contestation variable, in a close connection to its theoretical meaning, measures “the ability of citizens to gather independent information, band together in groups such as parties, compete in elections free of government interference, influence the selection of executive and have their interests and rights protected by courts and legislative representatives.” (Coppedge et. al. 2008, 637). Miller (2013) adopts a similar approach that extends Coppedge et. al.’s (2011) data back to 1815<sup>5</sup>. Given the rarity of war and availability of a wider temporal coverage starting from 1815, I exclusively use Miller (2013) dataset. The variable acquired from Miller’s (2013) data reflects “the extent and fairness of electoral competition between parties and distinct interests”(Miller 2013,4) and is measured by “the existence of independent political parties, the freedom of electoral competition, the extent of intra-governmental constraints, legislative membership by opposition parties, and the closeness of national votes”. For ease of interpretation, I normalize both variables to vary between 0 and 1 and following this step I reverse contestation variable so that higher values mean lower levels of contestation. Inclusiveness variable theoretically reflects the size of the coalition that a leader needs to keep satisfied in order to keep her position. This dimension in Coppedge et. al.’s (2011) data measures adult suffrage and “captures the size of the group – the selectorate – that chooses the executive or the legislature and holds them accountable” (Coppedge et. al. 2008, 637). Miller (2013) extends this data back to 1815. This variable is measured by suffrage and electoral turnout in regular elections. For ease of interpretation, I normalize both variables to vary between 0 and 1 and use Miller (2013) to increase the temporal and spatial coverage of the overall analysis data. The dataset covers all nation-years from 1815-2004.

Desch (2002) argues that there are cases of democracies winning wars as members of alliances

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<sup>5</sup> Miller (2013) has a main departure from Coppedge et. al. (2008). The dataset first constructs each dimensional measure using an intuitive aggregation instead of year-to-year principal component analyses. It then averages variables that measure an identical or highly similar political feature. In this way, similar sub-components within the dimensions are not double or triple counted.

Figure 4.2: DISTRIBUTION OF MULTILATERAL BALANCE



consisting of democracies and autocracies where non-democracy accounts for the majority of the winning alliance’s military power. As a result, to partial out the importance of the alliance contributions on the war outcome from the a given state’s own power , I introduce a variable that measures the power balance between the side  $i$ ’s and side  $j$ ’s allies so that we ensure that unit attributes are solely accounting for the unit level abilities. The multilateral balance of state  $i$  against nation  $j$  is constructed as follows:

$$\text{Multilateral Alliance Balance}_{i,j} = \left( \sum_{i=1}^I \text{CAP}_i - \sum_{j=1}^J \text{CAP}_j \right)$$

where  $i$  refers to the other states fighting on the side of  $i$  and  $j$  refers to the other states fighting on the side of  $j$ . The distribution of Multilateral Balance measure is shown in Figure 4.2. The individual capability scores are acquired from Correlates of War Project and it is composed of military, economic and demographic capability by computing each state’s average share of system-wide capability (Singer, Bremer, Stuckey 1972). I also create a similar variable for bilateral power balance in a similar fashion as the difference between side  $i$ ’s capabilities and side  $j$ ’s capabilities. The dataset covers all nation-years from 1816-2007.

Lake (1992), Beckley (2010) and Henderson and Bayer (2013) argue that the effect of wealth is the major causal process through which democracies win their wars. Beckley’s (2010) finding further shows that democracy has a detrimental effect on war winning probability. To account for

both Lake's (1992) alternative explanation regarding regime type-war outcome nexus, insignificant effect of democracy on war outcome (Henderson and Bayer 2013) and the negative effect (Beckley 2010), I introduce a variable that measures the wealth of nations. Even though the bilateral power balance is a proxy for the wealth advantage, building on the cumulative knowledge, I introduce gross domestic product from Maddison (2007). The data covers all the countries from 1 AD to 2010.

## 4.5 RESULTS

Following the literature on war outcomes (Downes 2009), I analyze whether and the extent to which the dimensions of the regime type affects a state's probability of defeat, draw and victory and I use an ordered probit model to test the hypotheses. This estimation model is specifically designed for the case where the dependent variable contains ordered and ranked outcomes, but the distances between the categories are not same for different levels. An ordered probit model is justified in this particular chapter because the underlying variable has three ordered outcomes - defeat, draw and victory and associated with these outcomes leaders derive three different utilities in a increasing order respectively. The assumption is that leaders derive the highest utility from victory as it translates into successful delivery of the promised good, less utility from draws as protracted stalemates means the resources are expended on a war effort but the promised good is not successfully delivered but may be delivered in the future. Finally, leaders derive the least utility from defeat as this means both war expenditure and failure in delivery of the promised goods. Ordered probit estimate is justified because draws and defeats cannot analytically be aggregated to no-win<sup>6</sup>.

I estimate the following ordered probit regression model to test the predictions of the model

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<sup>6</sup> One natural framework I could utilize is a probit framework where we compare victory as opposed to defeat. In addition to methodological problems associated with this approach (sacrifice of mutual exclusivity of the categories in the dependent variable), a comparison of percentage of correctly predicted by probit and ordered probit shows that ordered probit framework outperforms probit framework. Ordered probit predicts 90.7 percent of the cases correctly whereas this ratio is 87.1 for probit and this difference substantively translates into 24 warring-dyads. As a result, I use ordered probit following Downes (2009).

regarding war-outcome:

$$y_O = \begin{cases} \text{Victory} & \text{if } c_{12} \leq y_O^* \\ \text{Draw} & \text{if } c_{11} \leq y_O^* \leq c_{12} \\ \text{Defeat} & \text{if } y_O^* \leq c_{11} \end{cases} \quad (4.1)$$

where  $y_O^* = \sum_{i=1}^k \mathbf{x}_{i,t} \beta_i + \epsilon_i$  and where  $\mathbf{x}_{i,t}$  is a vector of independent variables and corresponds to inclusiveness of side A, inclusiveness of side B, uncompetitiveness of side a, uncompetitiveness of side b, multilateral alliance balance, bilateral capability ratio and  $c_{11}$  and  $c_{12}$  refer to the ordinal probit cut-off points.

Table 4.1 and Figure 4.3 presents the main empirical model where the unit attributes are cleared from the alliance attributes and pre-existing bilateral power relation between parties, hence, it allows us to show the impact of these two domestic level variables on war-winning probabilities given the alliance capability as well as pre-existing power ratio is kept constant.

Table 4.1: INCLUSIVENESS, CONTESTATION AND WAR OUTCOMES

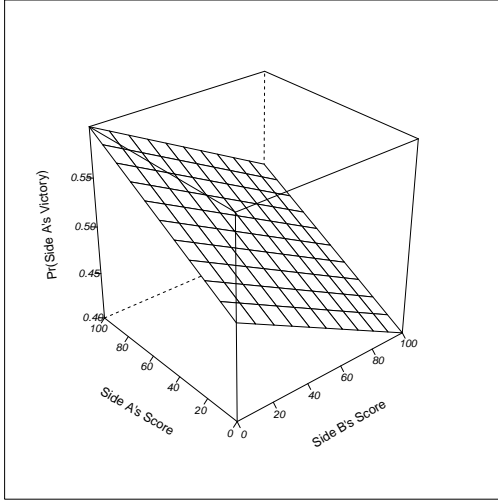
WAR OUTCOME	$\beta$	S.E.
<i>Inclusiveness Side A</i>	1.03	(0.28)***
<i>Inclusiveness Side B</i>	-1.03	(0.28)***
<i>Uncompetitiveness Side A</i>	0.40	(0.20)**
<i>Uncompetitiveness Side B</i>	-0.40	(0.20)**
<i>Multilateral Balance</i>	3.41	(0.11)***
<i>Bilateral Balance</i>	4.77	(0.94)***
Cutt-off 1	-0.29	(0.27)
Cutt-off 2	0.29	(0.27)
Observations		686
Pseudo R <sup>2</sup>		0.49
Pseudo LL		-331.4

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

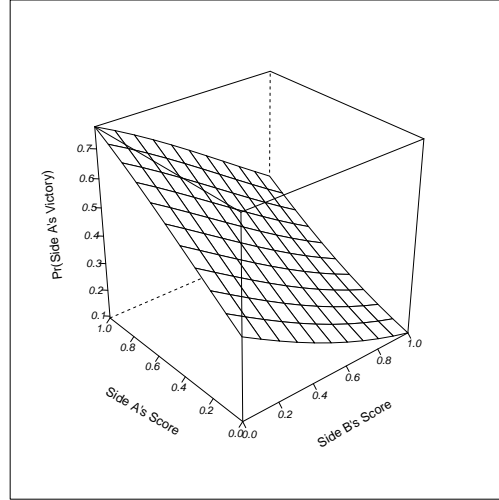
Robust standard errors are presented in parentheses.

Hypothesized shape of the data derived from formal model regarding inclusiveness and contestation dimensions are presented at Figure 4.3.a and 4.3.c. The theoretical model implies that leaders act strategically and evaluate the incentives of their ruling coalition and those of the opponent's. Any increase in the inclusiveness of the opponent is likely to decrease the probability

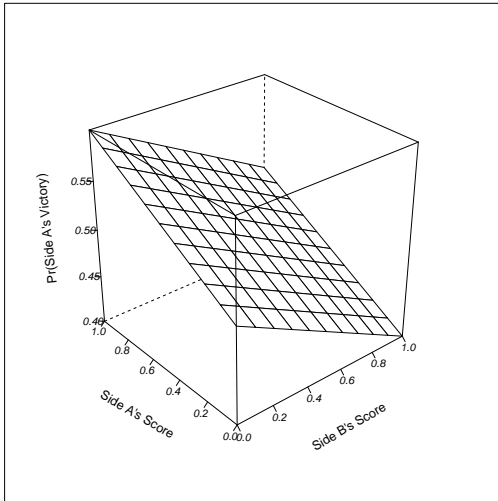
Figure 4.3: INCLUSIVENESS, CONTESTATION AND SIDE A'S VICTORY



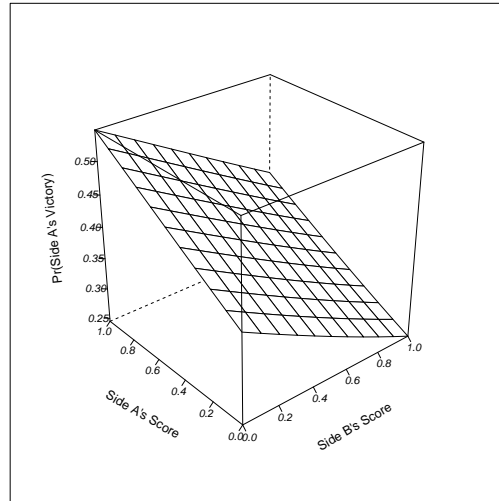
(a) Inclusiveness (Theoretical Prediction)



(b) Inclusiveness (Empirical Prediction)



(c) Uncompetitiveness (Theoretical Prediction)



(d) Uncompetitiveness (Empirical Prediction)

**Notes:** Theoretical predicted probabilities are acquired by setting  $n_i = 1$ ,  $n_j = 1$ ,  $R_i = R_j = 100$ ,  $\Omega = 0.01$ ,  $\mu_i = \mu_j = 1$  and the inclusiveness parameters ( $W_i$  and  $W_j$ ) are set equal for contestation analyses and the contestation parameters ( $a_i$  and  $a_j$ ) are set equal for inclusiveness analyses. The empirical predicted probabilities are calculated by holding other variables at their medians from the ordered probit regression in Table 4.1.

of victory as opponent leaders can mobilize a substantive portion of their resources (Chapter III). A direct implication of this in the theoretical model is that once the chosen route by any party is war, then the more inclusive regime should win the war. As can be seen, the coefficient on Inclusiveness Side A has the predicted positive sign (1.03) and is highly significant ( $p < 0.001$ ), meaning that inclusive regimes are more likely to win wars than non-inclusive regimes as predicted by the theoretical model (Hypothesis 5). Holding all the other variables constant, increasing inclusiveness of Side A from its minimum to maximum value (from 0 to 1 continuously) increases the predicted probability of victory of A by 40 percent (from 35 percent to 75 percent). Moreover, the coefficient on Inclusiveness Side B has the predicted negative sign ( $-1.03$ ) and is highly significant ( $p < 0.001$ ), meaning that an increase in opponent's inclusiveness decreases a challenger's probability of winning as posited by Hypothesis 6. Holding all the other variables constant, increasing the Inclusiveness of Side B from its minimum to maximum value (from 0 to 1) decreases the predicted probability of victory of A by around 30 percent (from 35 percent to 5 percent). The findings also imply a stark comparison between inclusiveness of side A and side B. A simultaneous increase in inclusiveness dimension for both party does not change the winning probabilities. Figure 4.3 presents the theoretical expectations and the associated theoretical predicted probabilities derived from the game theoretical model as well as the empirical fit of the data and the associated winning probabilities by Side A. As in the theoretical model, the shape of the theoretical predicted probability (Figure 4.3.a) is directly reflected within the data (Figure 4.3.b). As can be seen, changing the opponent's inclusiveness score from the most inclusive to the most exclusive and changing challenger's inclusiveness score from the most exclusive to the most inclusive increases challenger's winning probability around 70 percent.

Turning to the contestation dimension, as can be seen, the coefficient on Uncompetitiveness Side A has the predicted positive sign (0.40) and is significant ( $p = 0.044$ ), meaning that uncompetitive regimes are more likely to win wars than competitive regimes as predicted by the theoretical model (Hypothesis 3). Holding all the other variables constant, increasing uncompetitiveness of Side A from its minimum to maximum value (from 0 to 1 continuously) increases the predicted probability of victory by 20 percent (from 35 percent to 55 percent). This confirms the theoretical prediction that uncompetitive regimes are more likely to win the wars they become involved. The theoretical model implies that political actors act strategically and consider the opponent's uncompetitiveness and any increase in uncompetitiveness of the opponent is likely to decrease the probability of victory given that their opponent leaders in the scenario keeps a large war chest (Chapter III). As a result, the theoretical model indicates that uncompetitiveness of the opponent should decrease the winning probability of a potential challenger. The empirical model

provides a substantive evidence for this effect. As can be seen, the coefficient on Uncompetitiveness Side B has the predicted negative sign ( $-0.40$ ) and is significant ( $p = 0.044$ ), meaning that an increase in opponent's uncompetitiveness decreases a challenger's probability of winning and this confirms Hypothesis 4. Holding all the other variables constant, increasing the uncompetitiveness of Side B from its minimum to maximum value (from 0 to 1) decreases the predicted probability of victory by around 12 percent (from 35 percent to 23 percent). The findings also imply a stark comparison between uncompetitiveness of side A and side B. A simultaneous increase in uncompetitiveness dimension for both party does not change the winning probability of the challenger. Figure 4.3 presents the theoretical expectations and the associated theoretical predicted probabilities derived from the game theoretical model as well as the empirical fit of the data and the associated winning probabilities by Side A. As in the theoretical model, the shape of the theoretical predicted probability (Figure 4.3.c) is directly reflected within the data (Figure 4.3.d). As can be seen, changing the opponent's contestation score from the most uncompetitive to the most competitive and changing challenger's contestation from the most competitive to the most uncompetitive increases challenger's winning probability around 32 percent<sup>7</sup>.

In addition to domestic political variables, the propensity to winning depends on international factors, too. We observe that Side A's pre-existing multilateral alliance power advantage vis-à-vis Side A decreases the probability of winning for the opponent state. This basically means that the differential increase in the power distribution of A's alliance vis-à-vis B's has an amplifying effect on A's winning probability and the utility the Side B derives from this change is monotonically negative. In substantive terms, a change in Multilateral Alliance Balance from its minimum to maximum changes the probability of victory from 0.4 percent to 99 percent and this translates to a 99 percent increase in war winning probability holding all the other variables constant at their means. This is a novel finding for future research and this variable alone explains 45 percent of the variance in the dependent variable. Moreover, we also observe that bilateral balance of power increases the probability of victory outcome. This basically means that the differential increase in the balance of power in favor of Side A has an amplifying effect on A's winning probability and the utility the leader B derives from this change is monotonically negative. In substantive terms, a change in bilateral balance of power from its minimum to maximum value translates into 93

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<sup>7</sup> Inclusiveness dimension and Contestation dimension correlate only in the moderate range of 0.59 (Pearson's  $r$ ), so multi-collinearity does not present a problem, hence, the estimated predicted probabilities are not biased in a non-ignorable degree. This is confirmed by the variance inflation factor of 1.62 for Contestation dimension and of 1.58 for Inclusiveness dimension, which are well below the usual rule-of-thumb indicator for multicollinearity of 10 or more. On this point, see, John Neter, William Wasserman, and Michael H. Kutner, *Applied Linear Regression Models: Regression, Analysis of Variance, and Experimental Designs*, 3rd ed. (Homewood, IL: Irwin 1990), 408–11.

percent increase in A's winning probability holding all the other variables at their means.

Within the war-outcome literature Beckley (2010) and Henderson and Bayer (2013) attribute the overall relationship between regime type and war-outcome to wealth. Moreover, the alternative explanation by Lake (1992) attributes the democratic triumphalism to better extraction capacity of democracies from society and a better economic management, which in turn generates wealth within the economy. As a result, wealth within the literature has been argued to work either as a confounding process or an intervening process. As a result, accounting for wealth in empirical estimation, one way or another, should also affect the relationship between the regime variables - inclusiveness and contestation - and war outcome. The results of the new estimation model that tests the robustness of the results to inclusion of wealth are presented in Table 4.2. The results in Model I indicate that the coefficient estimates for Contestation and In-

Table 4.2: WEALTH, INCLUSIVENESS, CONTESTATION AND WAR OUTCOMES

WAR OUTCOME	Model I		Model II	
	$\beta$	S.E.	$\beta$	S.E.
<i>Inclusiveness Side A</i>	1.07	(0.33)***	1.05	(0.33)***
<i>Inclusiveness Side B</i>	-1.07	(0.33)***	-1.05	(0.33)***
<i>Uncompetitiveness Side A</i>	0.52	(0.24)**	0.48	(0.24)**
<i>Uncompetitiveness Side B</i>	-0.52	(0.24)**	-0.48	(0.24)**
<i>Multilateral Balance</i>	3.39	(0.13)***	3.48	(0.13)***
<i>Wealth Side A</i>	0.17	(0.05)***	0.07	(0.06)
<i>Wealth Side B</i>	-0.17	(0.05)***	-0.07	(0.06)
<i>Bilateral Balance</i>			3.53	(1.27)***
Cutt-off 1	-0.36	(0.74)	-0.37	(0.77)
Cutt-off 2	0.36	(0.74)	0.37	(0.77)
Observations	552		552	
Pseudo R <sup>2</sup>	0.49		0.50	
Pseudo LL	-331.4		-263.2	

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Robust standard errors are presented in parentheses.

clusiveness dimensions remain relatively unscathed: accounting for wealth causes small changes in the point estimates for regime variables, which increase their magnitude in the hypothesized direction. Wealth variable for Side A has the intuitive positive sign ( $\beta = 0.17$ ) and is highly significant ( $p < 0.001$ ) and for Side B has the negative sign ( $\beta = -0.17$ ) and is also highly significant ( $p < 0.001$ ). This intuitively means that the wealthier side has the revenue advantage and the opponent's wealth decreases the probability of victory. The impact of wealth however is not



significantly distinguishable from the overall capability of states. Model II in Table 4.4 controls for the differential overall bilateral capability advantage and it has a positive sign ( $\beta = 3.53$ ) and is highly significant ( $p < 0.001$ ). However, we see that Wealth Side A and Wealth Side B ceases to be significant. As a result, overall power balance accounts for the effect of wealth and the point estimates for inclusiveness and uncompetitiveness variables for both side A and side B are still around the same magnitude and they are significant within a similar confidence interval.

A further analysis shows that even when a standard measure utilized in the literature (Polity IV Binary) is introduced to the null model, results remain robust. As can be seen at Table 4.3, main independent variables of interest – inclusiveness and uncompetitiveness - remain as expected (with a higher magnitude this time) and highly significant when we include Polity IV to the null equation. Moreover, we also observe that Polity IV Side A and Polity IV Side B do not exert a significant when a war starts.

Table 4.3: CONTROLLING FOR POLITY IV

WAR OUTCOME	$\beta$	S.E.	$\beta$	S.E.
<i>Inclusiveness Side A</i>	1.03	(0.28)***	1.04	(0.28)***
<i>Inclusiveness Side B</i>	-1.03	(0.28)***	-1.04	(0.28)***
<i>Uncompetitiveness Side A</i>	0.40	(0.20)**	0.58	(0.21)***
<i>Uncompetitiveness Side B</i>	-0.40	(0.20)**	-0.58	(0.21)***
<i>Polity IV Side A</i>	-	-	0.21	(0.16)
<i>Polity IV Side B</i>	-	-	-0.21	(0.16)
<i>Multilateral Balance</i>	3.41	(0.11)***	3.36	(0.12)***
<i>Bilateral Balance</i>	4.77	(0.94)***	4.62	(0.95)***
Cutt-off 1	-0.29	(0.27)	-0.29	(0.28)
Cutt-off 2	0.29	(0.27)	0.29	(0.28)
Observations	686		686	
Pseudo R <sup>2</sup>	0.4853		0.4874	
Pseudo LL	-331.4		-330.1	

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Robust standard errors are presented in parentheses.

The nexus between war initiation and war outcome is also considered as a significant source of variation within the war outcome literature within the selection effect framework. Selection effect in relation to our war outcome equation above (Equation 4.1) directly refers to the ability of states to make optimal concessions in proportion to the might of the opponent. When the change-seeking party is more powerful than the target, the target would accept more concessions to appease the challenger, which would be preferable to a defeat in a war - a topic I address in

the next chapter. Similarly, if the target is the more powerful party, it would resist the challenge and refuse making concessions, given that it can avoid making any concession by fighting and winning. The aggressor recognizes this fact *ex ante* and decides not to attack and prefers the status quo to making a demand. As a result, baseline probabilities derived from Equation 4.1 might be off-the target as a result of states' selection of themselves into some wars and not others. As a robustness check and to account for this nexus I calculate war winning probabilities by jointly estimating Initiation and War Outcome. More specifically, I estimate the following bivariate ordered probit regression (Sajaia 2008) in a random utility framework, where two latent dependent variables - war outcome and war initiation - are determined by:

$$y_O^* = \mathbf{x}_{1i,t}\beta_1 + \epsilon_{1i}$$

$$y_I^* = \mathbf{x}_{2i,t}\beta_2 + \epsilon_{2i}$$

and we observe Initiation and War Outcome Variables such that

$$y_O = \begin{cases} \text{Victory} & \text{if } c_{12} \leq y_O^* \\ \text{Draw} & \text{if } c_{11} \leq y_O^* \leq c_{12} \\ \text{Defeat} & \text{if } y_O^* \leq c_{11} \end{cases}$$

$$y_I = \begin{cases} \text{Initiate} & \text{if } c_{21} \leq y_I^* \\ \text{-Initiate} & \text{if otherwise} \end{cases}$$

where  $y_O$  is War Outcome and  $y_I$  is Initiation dependent variables. The probability that  $y_O = \text{Victory}$  and  $y_I = \text{Initiate}$  is calculated as

$$\begin{aligned} Pr(y_O^* = \text{Victory}, y_I^* = \text{Initiate}) &= 1 - [Pr(y_O^* < c_{12}) + Pr(y_I^* < c_{21}) \\ &\quad - Pr(y_O^* < c_{12}, y_I^* < c_{21}, \rho)] \end{aligned}$$

and  $\epsilon_{1i}$  and  $\epsilon_{2i}$  are distributed as bivariate standard normal with a correlation  $\rho$  and more formally can be expressed as

$$\begin{aligned} Pr(y_O^* = \text{Victory}, y_I^* = \text{Initiate}) &= 1 - [\Phi(c_{12} - \mathbf{x}_{1i,t}\beta_1) + \Phi(c_{21} - \mathbf{x}_{2i,t}\beta_2) \\ &\quad - \Phi_2(c_{12} - \mathbf{x}_{1i,t}\beta_1, c_{21} - \mathbf{x}_{2i,t}\beta_2, \rho)] \end{aligned}$$

where  $\Phi$  is standard normal and  $\Phi_2$  is the bivariate standard normal cumulative distribution function,  $\vec{x}_{1i,t}$  is a vector of independent variables and corresponds to inclusiveness of side A, inclusiveness of side B, uncompetitiveness of side a, uncompetitiveness of side b, multilateral alliance balance, bilateral capability ratio and  $c_{11}$  and  $c_{12}$  refer to the ordered probit cut-off points. Moreover,  $\vec{x}_{2i,t}$  is a vector of independent variables and corresponds to inclusiveness of side A, inclusiveness of side B, uncompetitiveness of side A, uncompetitiveness of side B and the two instruments - the absolute value of multilateral alliance balance, the absolute value of bilateral power balance - that are correlated with Initiation decision (the absolute value of multilateral alliance balance has a correlation of -0.33 whereas the absolute value of bilateral alliance balance has -.01) but have zero correlation with the War Outcome variable. The absolute value specification basically builds on the intuition that regardless of the favored party in power relation, the increases in power differential decreases the mutual optimism (Blainey 1988) of the less powerful party in the dyad. However, the sign of the magnitude matters for War Outcome as the more preponderant party in a dyad is more likely to win.

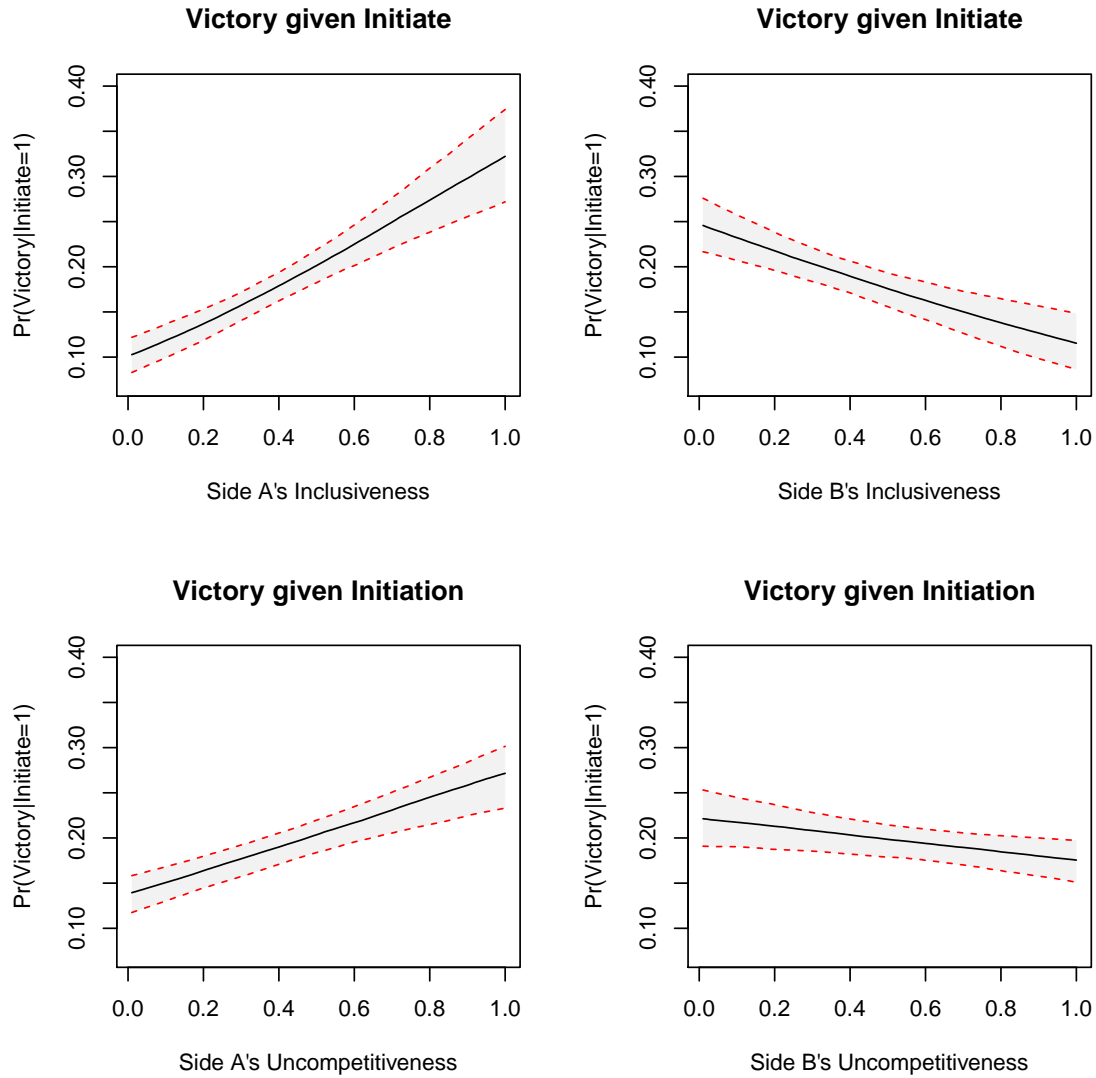
The main results of the bivariate ordered probit analysis is shown in Table 4.4, Column 2.  $\rho$  is the correlation of the error term across both equations and Table 4.4, Column 2 reports it  $\rho = 0.21$ . The coefficient on  $\rho$  is around four times the size of its standard errors in both models, suggesting that the null hypothesis that initiation and war outcome equations are independent ( $\rho = 0$ ) can be rejected. Hence, two processes are highly related and independent estimation of the two equations yield biased results and with bivariate procedure we retrieve consistent, asymptotically efficient estimates for all the parameters. The positive sign on significant  $\rho$  indicates that unmeasured variables in both equations are positively related hence those unmeasured factors such as readiness or resolve that make initiation more likely also increases the probability of victory.

Table 4.4 compares the original model from which the quantities of interest are estimated for each concept in a univariate ordered probit setting with the new bivariate ordered probit specification. As can be seen, the coefficient estimates as well as the standard errors are very similar hence proves the robustness of the results to initiation behavior of leaders depending on the domestic political institutions shaping their incentives. The predicted probabilities for victory outcome is also in a very similar range as presented in Figure 4.4 and further proves the robustness of the results in Table 4.1 and Figure 4.3, hence need not be discussed<sup>8</sup>.

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<sup>8</sup> The expected signs and significance levels are also robust to the World War I, World War II the sample used by Downes (2009). The only exception is the Uncompetitiveness of Side A, which is positive as expected but above the conventional significance levels ( $p = 0.233$ ). The results from this analysis are presented in the Appendix Table

Figure 4.4: INITIATION, VICTORY & CONTESTATION AND INCLUSIVENESS



**Note:** The graphs are created from Table 4.4, Column 2 (Bivariate Ordered Probit Specification) and quantities of interest are estimated by Clarify algorithm (King, Tomz and Wittenberg 2000), where all the other variables are set to their observed values (Hanmer and Kalkan 2013).

Table 4.4: INCLUSIVENESS, CONTESTATION AND WAR OUTCOMES

WAR OUTCOME	$\beta$	S.E.	$\beta$	S.E.
<i>Inclusiveness Side A</i>	1.03	(0.28)***	0.99	(0.28)***
<i>Inclusiveness Side B</i>	-1.03	(0.28)***	-0.98	(0.28)***
<i>Uncompetitiveness Side A</i>	0.40	(0.20)**	0.41	(0.20)**
<i>Uncompetitiveness Side B</i>	-0.40	(0.20)**	-0.40	(0.20)**
<i>Multilateral Balance</i>	3.41	(0.11)***	3.49	(0.12)***
<i>Bilateral Balance</i>	4.77	(0.94)***	4.66	(0.91)***
INITIATION				
<i>Inclusiveness Side A</i>	-	-	1.25	(0.24)***
<i>Inclusiveness Side B</i>	-	-	-0.30	(0.29)
<i>Uncompetitiveness Side A</i>	-	-	1.00	(0.20)***
<i>Uncompetitiveness Side B</i>	-	-	-0.04	(0.21)
<i>Multilateral Balance</i>	-	-	-1.78	(0.23)***
<i>Bilateral Balance</i>	-	-	0.55	(0.72)
Cutt-off 11	-0.29	(0.27)	-0.27	(0.27)
Cutt-off 12	0.29	(0.27)	0.31	(0.27)
Cutt-off 21	-	-	1.20	(0.30)***
$\rho$	-	-	0.21**	
Observations	686		686	
Pseudo R <sup>2</sup>	0.49		-	
Pseudo LL	-331.4		-619.3	

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Robust standard errors are presented in parentheses.

## 4.6 CONCLUSIONS

This chapter has shown that variation in war outcomes across dyads can be explained substantively within the contour of the contestation and inclusiveness features of democracy and how these two dimensions affect states' propensity to victory in interstate wars. So is democracy a luxury that states cannot afford during war time? The answer to this centuries old debate is both yes and no. The new second image formal theory predicts that the pessimist and optimist views on the role of democracy are actually a special case of the current model and shows that military effectiveness in both autocracies and democracies are simultaneously explained by this parsimonious theoretical model. We have seen that the shapes of the predicted probability graphs for each dimension are very closely uncovered from the empirical data for the last two hundred

years. More specifically, the large-N statistical evidence covering all war participant states in a directed dyadic framework over 1815-2007 suggests that inclusiveness of a regime and uncontested decision-making ability of leaders in a polity increases the military effectiveness of states. The empirical predicted probability graphs as well as the regression coefficients indicate that whereas inclusiveness feature of a polity explains the democratic triumphalism – the proposition that democracies outspend their opponents during an interstate dispute and win their wars more often – the contestation feature explains the autocratic triumphalism. Substantively, the empirical inquiry has shown that inclusiveness of a state increases its probability of winning by 40 percent and that of the opponent cancels out this probability in the opposite direction. Most favorably, the probability of victory is around 70 percent if the challenger is highly inclusive and the opponent is highly exclusive. The results also indicate that domestic politics in the shadow of the opposition is a liability for democracies and a blessing for autocracies. The effect of contestation feature translates 35 percent decrease in winning probabilities, hence, uncontested regimes derive a monotonically positive utility from engaging in a war against leaders operating under a competitive regimes.

One of the interesting findings of the empirical section of the chapter is that the Multilateral Alliance Balance is one of the ultimate predictors of the war outcome. Interesting in its own, this variable causes almost a hundred percent change in the war winning and its predicted probability graph starkly follows the shape of the cumulative density function of probit in its S curve and solely increases the pseudo R-squared by 45 percent<sup>9</sup>. Further study should focus on extending the present theoretical model to include an alliance dimension and generate predictions regarding when and how leaders will be willing to make concessions for third party involvement in their existing dispute. This will not only allow us to bring further predictions when and why inclusiveness and contestation dimensions of democracy will allow and press for joining an already initiated dispute, but also will help us explain the variation in war duration for originators and the joiners.

How does the militarization capacity (Chapter III) and the latent military advantage (this chapter) generated by the two persistent features of democracy shape states' deterrent capacity? Leaders should be more likely to solve their disputes with negotiation if they anticipate that their opponents are more likely to increase their military build-up, hence, decrease the chances of winning for the opponent. As a result, if the opponent has a high latent military capacity, targets should avoid escalatory behavior that result in war and potential initiators should avoid

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<sup>9</sup> The graph is available upon request

an initiation to begin with. This is where I turn now in the next chapter.

## APPENDIX

Table 4.5: INCLUSIVENESS, CONTESTATION AND WAR OUTCOMES | COMPARISON TO DOWNES (2009)

WAR OUTCOME	$\beta$	S.E.
<i>Inclusiveness Side A</i>	0.84	(0.44)*
<i>Inclusiveness Side B</i>	-1.43	(0.46)***
<i>Uncompetitiveness Side A</i>	0.39	(0.33)
<i>Uncompetitiveness Side B</i>	-0.80	(0.35)**
<i>Multilateral Balance</i>	4.70	(0.73)***
<i>Bilateral Balance</i>	3.97	(0.92)***
<i>Initiation Side A</i>	0.80	(0.29)***
<i>Initiation Side B</i>	-0.07	(0.32)
<i>Quality Ratio Side A</i>	0.01	(0.01)
<i>Quality Ratio Side B</i>	-0.06	(0.02)***
<i>Strategy 1</i>	0.79	(1.18)
<i>Strategy 2</i>	-1.15	(0.75)
<i>Strategy 3</i>	0.42	(0.65)
<i>Strategy 4</i>	1.77	(0.61)***
<i>Strategy*Terrain</i>	0.90	(0.35)**
<i>Terrain</i>	-3.14	(1.09)***
Cutt-off 1	-0.55	(0.90)
Cutt-off 2	0.18	(0.89)
Observations		224
Pseudo R <sup>2</sup>		0.35
Pseudo LL		-148.0

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Clustered standard errors are presented in parentheses.

The data sample as well as all the variables other than are *Uncompetitiveness* and *Inclusiveness* scores acquired from Downes (2009). The only change is that the data transformed from monadic to dyadic as in Table 4.1 to test the predictions for Side A's and Side B's winning probabilities conditional on the domestic political variables.



## Chapter 5

# SELECTION INSTITUTIONS AND RESORT TO VIOLENCE

### 5.1 INTRODUCTION

THIS CHAPTER MOVES towards the deductions of the theory regarding states' resort to violence and explanation of why some democracies and some autocracies are particularly more peaceful to each other's kind and why some democracies and autocracies are more deterrent than others. The primary goal of this chapter is to identify the conditions under which democracies and autocracies remain more peaceful with each other. The theoretical model predicts that these two types of peace among these different polities are a result of the deterrent magnitude of anticipated war-time defense expenditures. As a result, a full test of the predictions requires an evaluation of the effect of these two dimensions on conflict onset and escalation processes and assessment of whether these regimes are particularly more deterrent targets for an onset as well as an escalation decision for a given dispute. The empirical analyses in this chapter present a direct test of the

central propositions of the theory on conflict initiation, war escalation behavior in a directed dyadic framework and inter-polity peace within a non-directed dyadic framework. The results challenge existing theories about the regime type-deterrence (e.g. Bueno de Mesquita et. al. 1999) as well as regime type-credibility nexus (e.g. Fearon 1994; Schultz 2001; Weeks 2008) as well as regime-type-constraint nexus (e.g. Maoz and Russett 1993; Bueno de Mesquita and Lalman 1992). I show that leaders feeling secure of their reselection prospects as a result of lower levels of contestation and leaders operating in large winning coalition polities as a result of the common good mechanism are less likely to be targeted by a challenger state and if these leaders are on the challenger side, the conflicts they initiated are less likely face escalatory actions on the part of their targets.

## **5.2 INFORMATION, CONSTRAINTS AND DETERRENCE**

The nexus between regime type and states' resort to violence has a long pedigree in the international relations. The literature has revolved around both normative and institutional explanation of the empirical regularity of democratic peace "as close as anything we have to an empirical law in international relations" (Levy 1988, 662), which was uncovered as early as 1964, when Babst (1964) noted that democracies tend to be peaceful with each other and do not fight wars. Since then, international relations scholars turned their attention to understanding the causal mechanisms that cause this difference of democracies from non-democracies (e.g. Maoz and Russett 1993; Fearon 1994; Bueno de Mesquita et. al. 1999). Despite this longevity, the second image theories of war and peace have generally focused their attention to explain why there is a democratic peace and no peace among non-democratic dyads, as a result, the literature generated little empirical knowledge on the causes of peace among autocracies (Oren and Hays 1997; Gleditsch and Hegre 1997; Raknerud and Hegre 1997; Peceny et. al. 2002; Bennet 2006) and very scant theories for the phenomenon (e.g. Werner 2000; Weeks 2012; Lai and Slater 2006; Pickering and Kisangani 2010; Kinne and Marinov 2013) to form a more nuanced understanding of the qualities that distinguish some forms of autocratic regimes from others in their conflict behavior in the international arena. The separate peace among democracies and among some forms of autocracies are, however, not mutually exclusive, hence, empirical evidence for one does not necessarily exhaust the one for the other. In a seminal article, Bennet (2006) notes that the area lacks a single unified theory that explain both kinds of peace simultaneously. In what follows, I review and assess different lenses provided by philosophers as well as IR scholars to understand the conflict

process dynamics generated from the within.

### **5.2.1 Credibility of Resolve and Peace**

The audience cost theory suggests that states can send informative signals and allow their opponents to learn their resolve by making public threats in international crises. They do so either by tying their hands (Schelling 1960, 1966) through public threats and making back down a costly option as a result of the ability of domestic audiences to punish political leaders for failing to implement their earlier threats (Fearon 1994) or by a confirmatory signal of an opposition party which lends an additional credibility to a government's threats by publicly supporting the government's threat, a case where only the public support for the threat is high (Schultz 1998). In either case, both models predict that the ex-ante probability of war decreases as a result of the ability of either the government or the opposition to reveal information about their states preferences.

Leaders most sensitive to audience costs – those are in democracies as Fearon (1994) and others (Smith 1998; Guisinger and Smith 2002) suggest– are better able to commit their resolve to implement their threats and less likely to bluff, back down or initiate challenges from which they may retreat. These audience costs are exogenous for Fearon (1994) and they can take any mechanism that may increase the domestic political cost of retreat once a challenge is issued because failure to follow through a threat gives the opposition an opportunity to deplore the international “loss of credibility, face or honor”. However, the fact that leaders misrepresent their resolve and issue a challenge they may not follow through is done to derive a greater benefit on the behalf of the domestic audience as a successful bluff means higher benefits for the audience as a whole (Smith 1998). As a result, there is no rational incentive for the audience to punish, hence, the threat issued by those leaders should not separate her from unresolved types, in turn, a peaceful solution cannot be the equilibrium. So the question turns to reasons for the audience to punish their leaders caught bluffing. Why should back down result in a punishment? Scholars suggest alternative mechanisms: backing down reveals incompetence of a leader (Smith 1998) and blocks the benefits of future diplomatic communications (Guisinger and Smith 2002).

Smith (1998) suggests that the audiences want to retain competent leaders and remove incompetent ones. The audiences use crisis bargaining outcomes as a signal of their leaders' quality and since following through a threat is less costly for a competent leader, those who do not carry out their threats signal that they are incompetent. However, to the extent that incompetence and the ex-ante probability of reelection are related, the fundamental insight of the theory is damaged. Smith (1998) suggests that leaders perceived as incompetent and those with low ex ante proba-

bility of reelection cannot commit themselves to follow through their challenge and that leaders perceived incompetent have little to lose from backing down and this undermines his or her credibility. However, the large literature on diversionary war suggests that this kind of a leader has a lot to earn from a gambling for resurrection as the odds of reselection can only increase if she can update the audience's beliefs of her competence (Tarar 2006). On the opposite side, popular leaders with high ex ante probability of reelection will have a difficulty of generating audience costs and the most likely case for audience's credibility to punish leaders are generated when the leader is unpopular (Slantchev 2006, 468). As a result, juxtaposition of competence concerns (Smith 1998) and audience costs directs us to the proposition that credible audience costs are generated by leaders who are competent yet somehow unpopular and those who are popular – competent or incompetent – are less likely to credibly generate those costs (Slantchev 2006, 468) and they will be the ones to be deposed. These two border cases are so rare that they cannot be responsible for the overall trend found in Schultz's (2001a) quantitative analysis. However, happy with their standing, they are the ones to avoid those skirmishes with the other states not to lose face domestically in the first place because they have no incentive to update their audiences' beliefs. As a result, in either case the audience costs are not suffered as "leaders have an incentive to confound our inferences" (Schultz 2001b).

Guisinger and Smith (2002) suggest another reason why audiences might punish their leaders and argue that if reputation for honesty resides within individuals rather than states as a whole, the audience removes leaders caught bluffing to restore the benefits of diplomatic communication. This study does not shed much light on why should dishonest leaders who block diplomatic communication be replaced. Consider a territory and the valuation of a population for this territory and leaders have an incentive to receive more of this territory by lying about their valuation and resolve. Consider also the leader is removed after caught bluffing. In this case, the population's valuation about the territory will be revealed and opponents will know the audience's valuation is smaller than claimed by the deposed leader. This will bring less utility to the audience in future negotiations. If a leader is caught bluffing, hence backs down, the issue remains to be resolved by the new leader that replaces the dishonest one and the opponent state will already know the valuation of the audience for the contested issue. As a result, Guisinger and Smith (2002, 185) makes the questionable and explicit assumption that the audience's valuation of the contested territory during the current leader and a prospective leader are completely unrelated and issues unresolved through diplomatic negotiations that ended by a back down decision tend to disappear rather than persist. As a result, to the extent that the contested issue is likely to persist after a back down, leaders in Guisinger and Smith's (2002) model cannot send informative signals to

their international rivals with the audience cost mechanism.

Given these flaws in the argument, the logic of audience cost theory is actually much more demanding and the problems reside not only in the incentives of the audience to punish their leaders but also whether audiences can have an accurate knowledge of the crisis bargaining process. Even though an impartial and functioning media is a precondition for the audiences to learn the entire process (Slantchev 2006), leaders frequently go private as the reaction of the domestic audience are not entirely predictable and public scrutiny may backfire and embolden rather than deter an adversary (Baum 2004). Moreover, the media most of the time transmits incumbent government's preferred framing as in foreign policy, the most powerful elites tend to be those in control of government, rather than opposition, hence, citizens in democracies are under a significant informational disadvantage. This effect is amplified by the fact that these elites are at the same time main information providers to the media and they expect media to repay by conveying their preferred frame, hence, persistence of this relationship generates audience benefits rather than costs (Potter and Baum 2011). Furthermore, leaders' justification of a back down decision in the light of new information has a large and consequential effect on curbing audience costs (Levendusky and Horowitz 2012). Given these concerns, some suggested that autocracies have better informational mechanisms for the small audience of the leader than democracies as the audience in the former are generally the information givers rather than receivers (Brown and Marcum 2011).

Of course, the scope of the audience costs theory was not limited to democracies. Fearon (1994) define audience costs broadly as any domestic political price a leader pays should she fail to follow through a threat and autocracies given certain conditions are suggested to generate these costs (e.g. Weeks 2008; Kinne and Marinov 2013).

Kinne and Marinov (2013) draw attention to the role of electoral institutions in autocracies and the decisiveness of these institutions to replace leaders and the absence of pro-incumbent bias help autocratic leaders generate costly or confirmatory signals of their resolves. They argue that competitive authoritarian regimes, those regimes where elections can affect leaders' tenure yet "opposition leaders may be jailed, laws may be manipulated to exclude some parties and the media may be substantially manipulated by the government", can send informative signals about their resolve and their challenges are less likely to be reciprocated. On the other hand, autocratic regimes lacking effective elections are less likely to credibly communicate their resolve to their opponents. Hence, once they issue a challenge, the opponent is more likely to respond rather than capitulate. In addition to domestic audiences' valuation of leader competence and the problems associated with it as discussed above, Kinne and Marinov's (2013) account leaves

the intermediary causal link between leaders' handling of the crisis bargaining and manipulated information source, the media, in these regimes ambiguous. An additional problem is that the competent and incompetent leaders cannot distinguish themselves from each other as the media – the only source of information for the bargaining process - is in competitive autocracies are manipulated by the government. Hence, even though the citizenry's ability to depose their leader is real, the probability that the leader suffers from a back down given a biased media is very low (Slantchev 2006).

Weeks (2008; 2012) argues that a small group of supporters in autocratic regimes can remove incumbents when elites have incentives to coordinate to punish the leader and domestic politics is stable enough for outsiders to infer this possibility, hence they can generate audience costs. The autocratic audiences can overcome their coordination problem to punish if the cost of coordination is low (such as the leader cannot control security organs to monitor these elites) and the cost of leader turnover to the ruling group is small (elites' fates in some autocracies are not closely tied to the fate of leader)<sup>1</sup>. The theoretical argument suggests that single-party autocracies as the most likely candidate for audience cost generation (both cost of leader turnover and the coordination to the coalition are low) and personalist regimes as the least likely candidates (both cost of leader turnover and the coordination to the coalition is low) for searching the autocratic audience costs. She finds that single-party regimes can send informative signals about their resolves to their opponents – conflicts they initiate (measured as MIDs) are the least likely ones to be reciprocated – the opposite is true for personalist regimes. For Weeks (2008) the incentives for these regime insiders or elites to depose their leaders are the same as in democracies: backing down reveals incompetence of a leader (Smith 1998) and blocks the benefits of future diplomatic communications (Guisinger and Smith 2002); hence, Weeks' (2008) study is subject to the same shortcomings listed for these two lines of arguments, that is, challenge, surrender is not the equilibrium outcome as the regime insiders' incentives to depose the leader is not credible even though they have the means to do so. Elsewhere Weeks (2012) argues that these elites in single party regimes do not overlook defeats if the challenge is followed through by the leader. "Defeat in war damages an important instrument of repression – the military – and taxing citizens at higher rates to compensate for war-time losses is likely to reduce the regimes' other resource, the loyalty" (Weeks 2012, 332). As a result, since for Weeks (2012) it is very costly for

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<sup>1</sup> Weeks (2008) argues that these two costs are highest in single-party regimes among other autocratic regime types. For an opposite view about these costs, see Lai, Brian, and Dan Slater. 2006. Institutions of the offensive: Domestic sources of dispute initiation in authoritarian regimes, 1950–1992. *American Journal of Political Science* 50 (1): 113–126 as well as Brooker, Paul. 2000. *Non-democratic Regimes: Theory, Government and Politics*. St. Martin's Press.

these leaders to follow through their challenges, a relatively less constrained leader will accept the challenge and go to war, because the latter will have less to lose if the outcome is defeat. Hence, in this case, the contested nature of the polity translate into foreign policy liability and then back to domestic repercussions, an insight suggested by philosophers of different era such as Hamilton (1788), Machiavelli (1988[1532]), Tocqueville (1835[2010]).

In addition to these problems, process tracing case studies find that leaders rarely engage in bridge-burning strategies, a main requisite of all audience costs theories (Snyder and Borghard 2011; Trachtenberg 2012). They do so only when the domestic audience has a hardliner stance during the crisis i.e. as in England during Fashoda Crisis (Snyder and Borghard 2011, 442) or during the Falklands War and in this case the audience cost theory is redundant. However, Schultz (1998) suggests that this is not the only channel states send informative signals about their resolves. Public support of opposition parties, who are strategically seeking to replace the incumbent government, for the threats issued by their governments give those states an additional credibility. Even though both processes seem to be in harmony with each other, the confirmatory signals by opposition party actually weakens the ability of leaders to tie their hands as the unanimity means the government actually will not suffer an audience cost if what the audience punishes is incompetence because the governments are less (more) likely to be punished (rewarded) for their foreign policy failures if the opposition did not support the government during the crisis (Arena 2008), as a result, it is not credible for the audience to punish the leader<sup>2</sup>. For example, the fact that the Bay of Pigs invasion was a total failure but President Kennedy did not suffer domestic repercussions because both Democrats and Republicans in Congress supported the president's decision (Brody 1991)<sup>3</sup>.

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<sup>2</sup> Moreover, crises also help leaders to brand domestic opposition as tools of foreign aggressors (Snyder 1991), which makes it even harder for the rival state to infer whether the opposition support is based on the public support of war or to avoid becoming "the enemy of the state".

<sup>3</sup> Moreover, apart from these concerns, given a conflict domestic constituents take into account the endogenous winning probability of their state. If the winning probability is high, opposition will support a challenge anyway either by reaping the audience benefits given no challenge is issued or will support a threat to minimize the government's reward given one is issued. In the latter case, from an audience cost perspective, leaders' hands are not tied and threat is not credible as there is no electoral repercussion. From Schultz's (1998) perspective, the polity does send confirmatory signals, however, they do not convey more information as the endogenous winning probability is high. Furthermore, if the endogenous winning probability is low, the opposition does not support a threat. From audience cost perspective, the leaders' hands are completely tied and threat issued along with the resolve behind it is credible. Building on Schultz's (1998) perspective, leaders' hands are weak and the polity does not send confirmatory signals.

### 5.2.2 Kantian Constraints, Machiavellian Deterrence and Peace

Democratic constraint model suggests that states start wars as a result of the difference between their leaders' or publics'/ruling coalitions' valuation of a contested issue compared to status quo and/or the costs of militarization for the leader and/or the general public/the ruling coalition. The main optimization problem apart from the audience cost literature is to find variation in mainly on the benefit and cost leaders/populations expect to gain/accrue as a result of the crisis bargaining process in general and war outcome in particular. The influential interpretation by Doyle (1986) of the domestic peace correlation by deriving explanations from Kant's liberal internationalism and Machiavelli's liberal imperialism has brought increased attention to the concept and the literature has developed in two interrelated strands of arguments, democratic constraints and democratic deterrence.

The democratic constraint model dates back to liberal internationalism of Kant's (1795) *Perpetual Peace* to borrow Doyle's (1986) terms. The Kantian insight suggests that democratic states exercise peaceful restraint and because they exercise democratic caution, the cost of embarking a war to a head of state is very high as the peacefully inclined citizens in republics are the ones who supply the cost of war from their own resources and they are likely to use their power in favor of peace. In line with Kant's insights, early studies of democratic peace in IR started with the Kantian foundation. Scholars in this strand considered that democratic states externalize their norm of compromise to the international arena, thus, they can avoid the anarchic nature of international system between themselves and solve their problems in peaceful ways (Maoz and Russett 1993; Dixon 1994). Concurrently, structural constraint models proposed that democracy increases the accountability of the governing body so that it constitutes a public constraint for the government (Bueno de Mesquita and Lalman 1992; Siverson 1995). However, absence of a monadic peaceful effect (Pickering 2002), the fact that democracies monadically are no less likely than autocracies to initiate a conflict and that they are likely to attack to those who are disadvantaged in terms of power ratio such as in the wars of colonial expansion (Bueno de Mesquita et. al. 2003) led to more puzzles than answers for the democratic constraint model and paved the way for a Machiavellian break in the literature.

Machiavelli in *Discourses on the First Decades of Titus Livius*, contrary to Kant instructions for peace, underscored a source of military might in republics that reinforces a robust army for expansion. The main puzzle for Machiavelli in *Discourses* was why compared to other cities, the city of Rome or Athens in particular attained supreme greatness in their regions and he observed:

It is a marvelous thing to consider what greatness Athens came in the space of hundred years



after she freed herself from the tyranny of Pisistratus ... It is very marvelous to observe what greatness Rome came to after she freed herself from her kings. The reason is easy to understand, because not individual good but common good is what makes cities great. Yet without doubt this common good is thought to important only in republics because ... those benefited by the said common good are so many that they are able to press [for] it (Machiavelli 1965[1517], 329).

The Machiavellian turn in explaining democratic peace started with the influential selectorate theory with its novel predictions. The theory models how material cost of fighting change along with the variation in institutions designed for leader reselection and with its connection of deterrence to institutional constraints: peaceful resolution of disputes are similar to peace of devils – because leaders relying on large number of people’s support need to generate the common good of victory, hence, they are effective at fighting, they do not fight as they recognize each other as dangerous opponents (Bueno de Mesquita et. al. 1999). In addition to the role of common good mechanism, Machiavelli (1988 [1532]) also suggested a sources of military prowess in autocracies. Machiavelli recommended, autocratic leaders, if they want to be around longer, they should be able to fight better. Machiavelli (1988 [1532], 35), however, adds “the nobles cannot be satisfied without injuring [people]” and hints at the incompatibility of nobles’ interest in financing such a war and the limited ability of the leader to generate enough funds in the face of their unwillingness. He gives additional tips to his Prince Lorenzo de Medici to reverse this problem: “Those rulers who have achieved great things ... have all been considered mean [parsimonious]; all the others have failed (Machiavelli 1988 [1532], 56). Machiavelli continues: “because of [their] parsimony, [their] revenues are sufficient enough to defend [themselves] against any enemies that attack [them]” and to undertake military campaigns successfully and he gives examples of Pope Julius II, the then King of France Louis XII and the King Ferdinand of Spain. As a result, from Machiavellian account, we find peace among autocracies and among democracies in the least likely place: military deterrence. Whether this is so or not is an empirical question that I undertake below.

### **5.3 EMPIRICAL IMPLICATIONS OF THE THEORY**

There are two ways to translate the theoretical model to statistical model. The first one is the exact translation of the theorized data generating process where one party makes a negotiated settlement offer and the other party decides whether to accept or reject the offer and if rejects

both parties receive their reservations utilities from war outcome. The other way is to test the special case where the negotiations failed and one party decides to attack to the other one and the other party decides whether to escalate the conflict to a war or capitulate. The first scenario seems to be the most desirable specification as it contains the starting node of the theoretical model. However, the absence of data on the size negotiation offers does not allow us to estimate this part of the game. As a result, implementation-wise this strategy is not feasible<sup>4</sup>.

Another alternative is to closely analyze the preceding and subsequent processes of a conflict and infer whether the optimal division of the negotiated issue was achieved by an analysis of what happens in the subsequent node, that is, whether the other party decided to escalate the dispute to a war. If a party initiates a conflict to another state or escalate a given dispute to a full-fledged war level, we can conjecture that the opponent in both situations have no deterrent capacity against the initiating or escalating party. In a stylized model, in this alternative specification we can find additional leverage to draw inferences about the unknown within the negotiation process from the data on dispute initiation and war escalation behavior of states. Below I shortly restate the theoretical expectations about the role of inclusiveness and contestation summarized in Chapter II (See Corrolary 2.2, 2.3, 2.4 and 2.5 as well as Table 2.3 on page 33 ).

When there is an interstate dispute, the financial resources are appropriated differently in democracies and autocracies. Even though the democratic regimes have the advantage of war finance through the “common good” mechanism, autocratic regimes have the advantage of resource accumulation as a result of their leader’s ability to keep a handsome portion of resources undistributed for a future shock, such as a war. In the previous chapter, I empirically showed that inclusiveness drives the arsenal of democracy through the common good mechanism and uncompetitiveness drives the war-chest of autocracy. These are not just recent phenomena. In *Prince* and the *Discourses*, Machiavelli reveals us these two timeless dynamics in autocracies such as Papal States, France and Spain in 16th century and republics in Athens in 527 BC and Rome in 293 BC. Whereas in the former the ability of the leaders to discretionize resources beyond the control of nobles served to their capacity to finance their wars and bring greatness, in the latter, it was the size of the people that kept the leader accountable created a need for the leaders to provide the “common good” of *supreme greatness*. This has an implication on who initiates a dispute against

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<sup>4</sup> The Issue Correlates of War Project, which collects systematic data on contentious territorial, river and maritime claims, can be a potential extension that may resolve this problem. The dataset contains information on whether a challenger or a target dropped or renounced a claim and allows estimation of whether the parties of any contentious issue reaches an agreement either through negotiation or a war. A random utility approach to probit regression and its trivariate extension with conflict initiation and reciprocation processes may be considered as a potential extension for future studies.

whom and who escalates a given discord into a war given a dispute initiated. Following both the logic of the model and based on the substantive empirical record presented in the previous chapters, leaders should be more likely to solve their disputes with methods other than a war if they predict their opponents are more likely to increase their military build-up and decrease their chances of winning as well as increase the destruction associated with superior military strength they would face. As a result, I expect several propositions to fit the data: the defining feature of *Autocratic Deterrence* is the lower levels of contestation and the defining feature of *Democratic Deterrence* is higher levels of inclusiveness. This is because when the change-seeking party has large latent military expenditure capacity induced by inclusiveness and/or uncompetitiveness, the target would accept to give more concessions to appease the challenger, which would be preferable to a defeat in a war. As a result, disputes initiated by inclusive and/or uncompetitive regimes are less likely to be escalated to a full-fledged war.

***Hp 7:** If a dispute is initiated, a decrease in initiator's contestation level is likely to decrease target's propensity to escalate the dispute to war level.*

***Hp 8:** If a dispute is initiated, an increase in initiator's inclusiveness level is likely to decrease target's propensity to escalate the dispute to war level.*

Moreover, the model predicts inclusiveness and uncompetitiveness of a target to deter foreign policy activism of an aggressor. The logic is simple: when the target has the higher military expenditure capacity induced by inclusiveness and contestation dimensions, it would resist a challenge and refuse making concessions, given that it can avoid making any concession by fighting and winning. The aggressor recognizes this fact *ex ante* and decides not to attack and prefers the status quo to making a demand.

***Hp 9:** A decrease in targets' contestation level is likely to deter an attack or status quo changing behavior by other nations.*

***Hp 10:** An increase in targets's inclusiveness level is likely to deter an attack or status quo changing behavior by other nations.*

In addition to the directional dyadic hypotheses, I derived several non-directed dyadic hypotheses from the theory at Table 2.3 (on page 39) and lay out the conditions under which we should observe peace among democracies and among autocracies. A similar increase in uncompetitiveness in autocratic pairs leads to an increase in war spending while keeping the probability of winning the same. As a result, simultaneous increase in this parameter leads to an overall

decrease in war utilities of both parties because fighting becomes more and more expensive compared to the reward. In a similar logic, a similar increase in inclusiveness also leads to an increase in war expenditures while keeping the probability of winning the same. Hence, simultaneous increase in this parameter leads to an overall decrease in war utilities of both parties because fighting becomes more and more expensive compared to the reward. This leads to the following two expectations:

***Hp 11:** A decrease in dyadic contestation is likely to decrease the probability of a conflict onset in a dyad.*

***Hp12:** An increase in dyadic inclusiveness is likely to decrease the probability of a conflict onset in a dyad.*

To compare these predictions of against alternative explanations outlined above, my theory predicts that inclusiveness of a defender *decreases* the probability of an initiation by a challenger and inclusiveness of a challenger *decreases* defenders' war escalation utilities. Constraint model has diametrically opposite predictions: inclusiveness of a defender *increases* the probability of an initiation, and inclusiveness of a challenger *increases* defender's war escalation utility. Whereas my model suggests that inclusiveness generates deterrence, this alternative view suggests it constrains. Moreover, my theoretical model suggests that uncompetitiveness of a defender *decreases* the probability of an initiation by a challenger and that uncompetitiveness of a challenger *decreases* defenders' war escalation utilities. Even though this dimension is in agreement with the constraint model, it is diametrically opposed to the informational model: My model suggests uncompetitiveness generates deterrence, the informational model suggests this decreases the informational leverage through shrinking audience costs, hence, increases the chances of war as a result of bluffing. In addition, in terms of inter-polity peace, the difference of my model's predictions are more pronounced. Whereas my theory's predictions regarding inclusiveness and non-dyadic peace is in complete agreement with constraint model - both models suggests dyadic inclusiveness promotes peace, it widely differs from both theories as the deterrence model predicts dyadic uncompetitiveness promotes peace, the constraint and informational model predict exactly the opposite. In the next section, I turn the procedures to test the implications of the theory on interstate conflict initiation and war-escalation behavior of states within a directed dyadic framework and inter-polity peace within a non-directed dyadic setting.

## 5.4 RESEARCH DESIGN

### 5.4.1 Testing Directed Dyadic Propositions

#### 5.4.1.1 Estimation Model

In order to test the directional hypotheses derived from the formal model, this section lays out the appropriate methodology to test data generated from a process where A decides whether to initiate a conflict and B decides whether to escalate the conflict to war. The current methodological scholarship provides us several strategies to estimate such a process. The first approach is to employ independent standard logistic or probit regressions for initiation process and escalation process. This strategy is useful when the target and the initiator do not share unobserved factors that affect their propensity to take an action and they are not in a strategic interaction. This approach aggregates the status quo and capitulation into a single outcome of the absence of war as a result, does not distinguish the cases where a dispute is initiated but not escalated into a war. Theoretically, this option is out of question because we are interested in two different questions in this study: whether a dispute arises and if it arises, whether the target escalates it into war.

An alternative approach is to estimate two equations. That is, we can first estimate the initiation equation, then the escalation equation by truncating the sample to the initiation cases and assume that the unobserved factors within both equations are independent. In this case we can run separate probit/logit regressions and report the quantities of interest based on parameter estimates from the two models. However, our inference from the escalation equation will be biased and inconsistent if there are common factors in both equations' error terms, while leaving the parameter estimates for the initiation equation relatively unscratched (Dubin and Rivers 1989). To eliminate this possibility, rather than an independence assumption, we should generalize our model so that we can infer from the data about the magnitude of the correlation of the two model's error terms and the implications of this correlation on the quantities of interest we are seeking to extract from the data. In this strategy, we account for the non-random selection of states themselves into a dispute initiation within the escalation stage. As a result, we eliminate the bias and inconsistency within the parameters of the war escalation equation.

This specification allows us to estimate whether a challenger initiates a dispute against an inclusive or uncompetitive regime and given a dispute initiated, whether the target escalates the dispute initiated by an uncompetitive or an inclusive regime. In order to meet the exclusion restriction necessary for the identification of the selection model, one needs to rely on theory for the variables that model the selection process. To meet the exclusion restriction criteria and to

test the hypotheses relating to the deterrence, I include various covariates utilized in the conflict onset literature to model the conflict onset stage by the initiator and various covariates utilized in conflict reciprocation literature to model the war escalation stage by target. I include Contiguity, Distance, Peace years and cubic splines into the initiation equation and several variables comparing major power advantage for either party, four revision types and alliance portfolio similarity into the escalation equation. The excluded variables in the initiation stage are uncorrelated with the errors of war-escalation equation because those same variables are explicitly included as covariates within the escalation stage. Both theoretically and empirically, these two sets of variables provide unique information on the onset of a conflict and allow us to meet the exclusion restriction criterion.

#### 5.4.1.2 Data and Sample Space

On a leader level directed dyadic analysis, I assess the role of inclusiveness and contestation on conflict onset, escalation behavior of states and this design procedures to test the four expectations deduced above. The leader level data is acquired from Archigos dataset (Goemans et. al. 2009) and each leader is paired with all other contemporaneous leaders. King and Zeng (2001) warns us against the biases within the estimated probabilities of rare events such as war and this bias gets larger in proportion to the rarity of the event. The bias is basically present in the location of the cut-off for distinguishing  $y_i = 1|x$  and  $y_i = 0|x$ . Because the bias in the predicted probabilities increases proportional to the rarity of the event, I employ an endogenous choice-based sample of all dyads for the period the period over 1875-2001. Endogenous sampling procedure includes all the fighting dyads into the sample and draw a random sample of peaceful dyads from the dataset that is five times larger than the fighting sample<sup>5</sup> and this procedure retrieves almost the exact coefficient estimates and standard error estimates of all the covariates except the constant in the full sample model. The only difference is present in the constant and the resultant baseline dispute initiation probabilities.

To study the interaction between two states, the data generating process is modeled as follows: Leader A decides whether to retain the *Status Quo* or to initiate a *Militarized Interstate Dispute (MID)* and conditional on this *MID* initiation, leader B decides whether to escalate the conflict to a *War*. I acquire the conflict data from Maoz's (2005) dataset. MID is coded as 1 if side A becomes involved in explicit threats, displays or actual uses of military force (Jones, Bremer & Singer

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<sup>5</sup> Alternative ratios yield identical coefficient and standard error estimates of all covariates other than the constant term because of the random nature of the sampling process

1996, 163) against the side B. As an alternative dependent variable for the initiation equation, I also include *Use of Force*. *Use of Force* is coded as 1 if side A initiates a conflict that reaches a hostility level where she actually uses force (*mzhostd*=4)<sup>6</sup>. Given a dispute initiation by the side A, the target is coded to have escalated the conflict to a full-scale war if it reaches the highest hostility level (*mzhostd*=5).

Within this bivariate framework, I can test a nuanced role of the dimensions of democracy on deterrence, particularly, direct-general and direct-immediate deterrence<sup>7</sup>. Whereas the *initiation stage* serves to assess the general deterrence success of a target state – that is preventing initiators from issuing military threats and actions that escalate competition into a crisis or military confrontation, the *escalation stage* serves to assess the immediate deterrence success of a challenger state – prevention of a state from escalation of the crisis into a large-scale use of military force. Hence, deterrence failure occurs if a challenger issues a threat in the form of limited probes such as threat to use or use of force (direct-general deterrence failure) and if a target state escalates a given crisis to a large-scale war (direct-immediate deterrence failure). The data also shows this kind of a sequence frequently: 74 percent of the immediate deterrence failures (N=234) – operationalized as the failure to prevent opponent from reaching a hostility at a war level – are suffered by challengers, whereas 26 percent (N=82) by the target state<sup>8</sup>.

Regarding the informational mechanism, the framework indicates that some states can send informative signals and allow their opponents to learn their resolve by making public threats in international crises. *Escalation stage* serves to assess credibility of resolve – that is whether the initiator can separate itself from non-resolved types through costly (Fearon 1994) or confirmatory (Schultz 1998) signals generated through domestic politics. *Initiation stage* serves to account for self-selection of leaders. If their opponent can also send costly or confirmatory signals about its resolve, challengers are less likely to self-select themselves into a conflict against such opponents. As a result, the probability that the opponent escalates the conflict is the product of the probability

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<sup>6</sup> Use of Force also allows us to avoid the biases in reporting of MID: For example, the media may be more biased to report MID that involve use of force occurring in Europe than i.e. those occur in Central Asia. However, if a MID involves actual use of force, it is less likely to go unannounced in the international media regardless its geographic location. Another alternative could be Fatal MID, disputes involving fatality. However, I do not test the theory with Fatal MID as a very high percentage of these MID are reciprocated and does not allow us to test the selection mechanism due to near absence of the censored sample. Use of Force has a better balance between escalation and non-escalation cases. As a result, in addition to the MID of any hostility level, I rely on Use of Force as the second dependent variable for the current analyses. In the non-directed dyadic analyses, I return back to Fatal MID analyses.

<sup>7</sup> For an excellent discussion of deterrence and the extensive review of the literature, see Huth (1999).

<sup>8</sup> Institutional constraint model is analogous to this framework, hence, need not be discussed.

that the challenger believes it is facing a non-resolved type and the probability that the defender believes it is facing a non-resolved type. Shultz (1999) suggested that states with higher audience costs might choose those ones they believe are likely to back down, hence, the two probabilities are correlated and with single equation models, we might observe the response of only the targets that are deemed unresolved to fight in the first place and the bivariate model is handy in this situation. To summarize, in this framework, a signal is informative of the resolve of target if the challenger does not issue a threat in the first place and it is informative of the resolve of the challenger if the target does not escalate the crisis.

Since the theory is directly related to the two dimensions of a polyarchy - inclusiveness and contestation - I utilize an existing dataset (Coppedge et al. 2008) which conducts factor analysis from the existing 13-15 widely used democracy indicators from Banks (1979), Bollen, Jackman and Kim (1996), Freedom House, Polity IV, Vanhanen (1990), Cheibub and Gandhi (2004), Cingranelli and Richards (2004). The data is available for the period over 1950-2000 and covers 199 countries. Contestation variable reflects the ability of the citizens (or the winning coalition of the leader) to control the leader with a credible exit option. If the leader does not face a serious domestic deposition risk due to incompetent contestation in an uncompetitive arena, the members of the winning coalition will not be able to credibly threaten the leader to defect to a challenger. Contestation variable, in a close connection to its theoretical meaning, measures “the ability of citizens to gather independent information, band together in groups such as parties, compete in elections free of government interference, influence the selection of executive and have their interests and rights protected by courts and legislative representatives.” (Coppedge et. al. 2008, 637). Miller (2013) adopts a similar approach that extends Coppedge et. al.’s (2011) data back to 1815<sup>9</sup>. Given the rarity of war and availability of a wider temporal coverage starting from 1815, I exclusively use Miller (2013) dataset. The variable acquired from Miller’s (2013) data reflects “the extent and fairness of electoral competition between parties and distinct interests”(Miller 2013,4) and is measured by “the existence of independent political parties, the freedom of electoral competition, the extent of intra-governmental constraints, legislative membership by opposition parties, and the closeness of national votes”. For ease of interpretation, I normalize both variables to vary between 0 and 1 and following this step I reverse contestation variable so that higher values mean lower levels of contestation. Inclusiveness variable theoretically reflects the size of the coalition

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<sup>9</sup> Miller (2013) has a main departure from Coppedge et. al. (2008). The dataset first constructs each dimensional measure using an intuitive aggregation instead of year-to-year principal component analyses. It then averages variables that measure an identical or highly similar political feature. In this way, similar sub-components within the dimensions are not double or triple counted.



that a leader needs to keep satisfied in order to keep her position. This dimension in Coppedge et. al.'s (2011) data measures adult suffrage and "captures the size of the group – the selectorate – that chooses the executive or the legislature and holds them accountable" (Coppedge et. al. 2008, 637). Miller's (2013) data measures inclusiveness by suffrage and electoral turnout in regular elections. The overall bivariate as well as temporal distribution of the dimensions are presented in the Appendix.

#### 5.4.1.3 Defining the Initiation and Escalation Equations

To model *Initiation* equation, I utilize several variables that increase a potential challenger's utility to refrain from dispute initiation. I include contestation and inclusiveness of each polity into its opponent's utility functions<sup>10</sup>. I also include preexisting capability ratio, defined as natural logarithm of side A's capabilities-composed of military, economic and demographic capability by computing each state's average share of system-wide capability-in relation to side B's capabilities. Moreover, a conflict is impossible or very costly if side A cannot reach the other. Thus, I include distance, measuring the inter-capitol proximity and contiguity, a measure that equals 1 if two states are directly contiguous by land. I also include peace year cubic polynomials to side A's dispute initiation equation as proposed by Signorni and Carter (2010) to account for the temporal dependence within the observations.

To model the *Escalation* equation, I follow Schultz (2001) and introduce a number of control variables designed to control for other factors which are known or suspected to affect the propensity of states to escalate a given conflict. The regressions include two sets of additional controls: The first set of variables is intended to control for the effect of standard realist hypotheses. First, the weaker the target state in a dyad, the less likely it is for the target to escalate the conflict to a war, suggesting that the probability of war escalation should decrease with the initiator's power relative to the challenger. As a result, I also include preexisting capability ratio, defined as natural logarithm of side A's capabilities-composed of military, economic and demographic capability by computing each state's average share of system-wide capability-in relation to side B's capabilities. Moreover, states with the ability to project power globally - major powers - should face less escalatory behavior from lesser states than vice versa. As a result, I include three dummy

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<sup>10</sup> Clare and Danilovic (2010) finds that a dispute is more likely to be initiated when both parties are jointly democratic, joint democracy does not exert a significant effect on the probability of escalation. Considering the logic of my theoretical model, it is not possible to infer which dimension in which polity is causing this behavior their analysis. As a result, I distinguish the regime variables for initiator and target and then I disaggregate democracy into its components as inclusiveness and contestation.

variables for the major power status of both dyads to side B's escalation equation: major power initiator-major power target, major power initiator-minor power target, minor power initiator-major power target are included to account for whether the dyad includes a major power and if so, which one has the advantage if any. Similar to Schultz (2001) I also include variables that capture the similarity of strategic interest and potential sources of contention within the dyad. These are measured in three different ways. Alliance portfolio similarity (Signorino and Ritter 1999) is included as a proxy for the similarity of strategic interests in a dyad and controls for the pacifying effect of similarity of alliance portfolios between two states. To account for the potential sources of contention, I use a proxy for the satisfaction with the status quo within a dyad and include four different revision types: territory, policy, government and other types of revisions that are not categorized within these three types. The data for these variables are generated by the EUGene Software 3.204 (Bennett & Stam 2000).

#### **5.4.2 Testing Non-Directed Dyadic Propositions**

On a leader level non-directed dyadic framework, I assess the role of inclusiveness and contestation on interstate conflict onset. In order to analyze the dimensions of polity-conflict nexus, I utilize three measures of conflict onset, which capture my theoretically relevant dependent variable: the Correlates of War project's definition of militarized interstate disputes (MIDs), Fatal MIDS - MIDs that have at least one battle-related death – and the International Crisis Behavior project's definition of international crisis.

The models includes inclusiveness low - the smaller inclusiveness score of a dyad (Dixon 1994). Larger values of this variable indicate a higher inclusiveness score for both members of a dyad. The models also include uncompetitiveness low - the lower uncompetitiveness score of a dyad. Larger values of uncompetitiveness low indicate a higher uncompetitiveness score for both members of a dyad. Moreover, I include inclusiveness high and uncompetitiveness high to account for the effect of the regime heterogeneity on conflict proneness of the dyads.

Capability ratio, defined as natural logarithm of weaker states capabilities-composed of military, economic and demographic capability by computing each state's average share of system-wide capability-in relation to the stronger state's capabilities, is included to account for the distribution of the capabilities as power preponderance deters conflict, while equal distribution increases risks of a conflict (Bremer 1992). In addition, a conflict is unthinkable if at least one state cannot reach the other. Thus, I include distance, measuring the inter-capitol proximity and contiguity, a measure that equals 1 if two states are directly contiguous by land. Moreover, for the

same reason I also add major power status, coded 1 if a dyad includes at least one great power. The data for capability ratio, contiguity, distance and major power status are generated by the EUGene Software 3.204 (Bennett & Stam 2000).

## 5.5 RESULTS

### 5.5.1 Directed Dyadic Analyses

I estimate the following bivariate probit model with sample selection to test the predictions of the model regarding the conflict-initiation by a challenger and war-escalation decision of a target<sup>11</sup>:

$$\begin{aligned}
 Pr_{\text{Initiator}}(\text{MID} = 1) &= Pr(\mathbf{x}_{i,j,t}\beta_i + u_1 > 0) \\
 Pr_{\text{Target}}(\text{WAR} = 1) &= Pr(\mathbf{z}_{i,j,t}\gamma_i + u_2 > 0) \\
 u_1 &\sim N(0, 1) \\
 u_2 &\sim N(0, 1) \\
 \text{corr}(u_1, u_2) &= \rho
 \end{aligned}$$

Table 5.1 presents the main results from a bivariate probit model with Heckman type sample selection correction. In the model, I estimate two different initiation dependent variables and associated with these two different models. In the first model, I estimate a model where the target country responds to a militarized interstate conflict at any hostility level with a war. In the second model, I estimate the dispute initiation dependent variable with Use of Force.  $\rho$  is the correlation of the error term across both equations and it is  $\rho = -0.50$  in the war escalation equation given a MID and  $\rho = -0.62$  in the war escalation equation given Use of Force. The coefficient on  $\rho$  is around five times the size of its standard errors in both models, suggesting that the null hypothesis that initiation and war-escalation are independent ( $\rho = 0$ ) can be rejected. Hence, two processes are highly related and independent estimation of the two equations yield biased results and with bivariate procedure we retrieve consistent, asymptotically efficient estimates for all the parameters. The negative sign on significant  $\rho$  indicates that unmeasured variables in both equations are negatively related hence those unmeasured factors such as resolve that makes initiation more likely decreases the probability that target escalates the dispute to a full-fledged

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<sup>11</sup> This approach does not assume an independence of the decision to initiate and decision to escalate, but in a generalized framework, estimates the degree of dependence between the two decisions and as indicated allows us to test expectations derived from the deterrence model against informational and constraint models.

war.

The effect of target's uncompetitiveness on challengers' initiation decision is expected to be positive by the informational model as decreasing contestation within the polity decreases the ability of a leader to send costly (Fearon 1994) and confirmatory (Schultz 1998) signals, hence potential challengers are likely to choose unresolved targets - at least those who cannot separate themselves from unresolved ones. The deterrence model expects a negative relationship - that is, as leaders become more unconstested within the polity, they increase their defense expenditures given a conflict (as shown in the previous chapter). As a result this makes them unattractive targets. Constraint model agrees with deterrence model on the relationship between contestation of a target and the initiator's probability of challenging as in this model contestation allows peacefully inclined citizens to control their government (normative account) and constitutes public constraint for the government (structural account). Hence, as a result of the high cost of war on the tenure of the leader, these states are likely preys for an potential aggressor (Rousseau et. al. 1996). The empirical model, as expected by the deterrence model and constraint model, shows that the coefficient estimate of target's uncompetitiveness in the lower part of the Table 5.1 and column 1 is negative ( $-0.39$ ) and statistically significant ( $p < 0.001$ ). This confirms Hypothesis 9 and indicates that an increase in target's uncompetitiveness is likely to deter an attack by another state and confirms the comparative statics prediction of the deterrence model that uncompetitive regimes are unattractive targets for conflicts at any level of hostility and fails to confirm the expectations of the informational model. This is because when a conflict is initiated, states, as shown in previous chapter, increases the the amount of defense expenditures as the level of uncompetitiveness increases within the polity. As can be seen in Figure 5.1, an increase in uncompetitiveness from 5th percentile to 95 percentile leads to a 7 percent reduction in the MID initiation probability by state A<sup>12</sup>.

Concerning the role of inclusiveness of the polity, deterrence model expects a negative relationship between target's inclusiveness and a potential challenger's aggression. This time, informational model does not have clear-cut predictions whereas the constraint model has a diametrically opposite expectation. When we examine the effect of target's inclusiveness, we observe that the coefficient estimate is negative ( $-0.75$ ) and statistically significant ( $p < 0.001$ ), confirming

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<sup>12</sup> Censored Probit model is not directly available on Clarify software (King, Tomz and Wittenberg 2000) in its Stata version, as a result, the quantities of interest are calculated manually by following the algorithm provided in King, Tomz and Wittenberg (2000). To calculate the predicted probabilities, I set all the other variables to their observed values (Hanmer and Kalkan 2013). The observed value approach varies only parameters of interest while keeping the other variables at their observed values and averaging out the quantities of interest. For details of this approach and its comparison to average case approach, see Hanmer and Kalkan (2013)

Table 5.1: HECKMAN SELECTION MODEL,1876-2001

ESCALATION TO WAR BY TARGET	Model 1	Model 2
<i>Initiator's Uncompetitiveness</i>	-0.88*** (0.25)	-1.01*** (0.28)
<i>Initiator's Inclusiveness</i>	-1.24*** (0.35)	-1.21*** (0.38)
<i>Major Power Initiator-Major Power Target</i>	0.98** (0.42)	1.11** (0.47)
<i>Major Power Initiator-Minor Power Target</i>	1.08*** (0.19)	1.00*** (0.19)
<i>Minor Power Initiator-Major Power Target</i>	0.96*** (0.30)	1.04*** (0.31)
<i>Capability Ratio A/B</i>	-0.11*** (0.03)	-0.085** (0.03)
<i>Alliance Portfolio Similarity</i>	0.51* (0.29)	0.43 (0.31)
<i>Revision: Territory</i>	0.84*** (0.18)	0.85*** (0.18)
<i>Revision: Policy</i>	-0.30 (0.23)	-0.29 (0.24)
<i>Revision: Government</i>	0.49* (0.28)	0.41 (0.28)
<i>Revision: Other</i>	-4.28*** (0.26)	-4.96*** (0.57)
Constant	-1.12*** (0.36)	-0.36 (0.39)
INITIATION BY CHALLENGER	MID	USE OF FORCE
<i>Target's Uncompetitiveness</i>	-0.39*** (0.08)	-0.44*** (0.09)
<i>Target's Inclusiveness</i>	-0.75*** (0.10)	-0.96*** (0.11)
<i>Capability Ratio A/B</i>	0.095*** (0.01)	0.050*** (0.01)
Constant	2.38*** (0.20)	1.34*** (0.22)
Observations	17,386	17,933
Censored Observations	15,886	17,012
Uncensored Observations	1,500	921
Log-Likelihood	-3486	-2790
$\chi^2$	18.4***	18.4***
$\rho$	-0.50***	-0.62***

± Contiguity, Distance, Peace Years and cubic splines for the INITIATION stage are not presented to save space. Standard errors corrected for clustering by leader-level dyads are in parentheses.

the deterrence account and rejecting the constraint account: Increases in the size of the coalition that keeps the leader accountable in target state is likely to deter an attack by another state, hence, inclusive regimes, like uncompetitive regimes, are unattractive targets for conflicts at any level of hostility. This finding confirms Hypothesis 10. Similarly, this is as a result of the fact that inclusive regimes increase the amount of the military spending when they become involved in a conflict. Figure 5.1 presents the impact of target's inclusiveness on MID initiation. As can be seen, an increase in inclusiveness from 5th to 95th percentile leads to 13 percent reduction in the MID initiation probability by state A<sup>13</sup>.

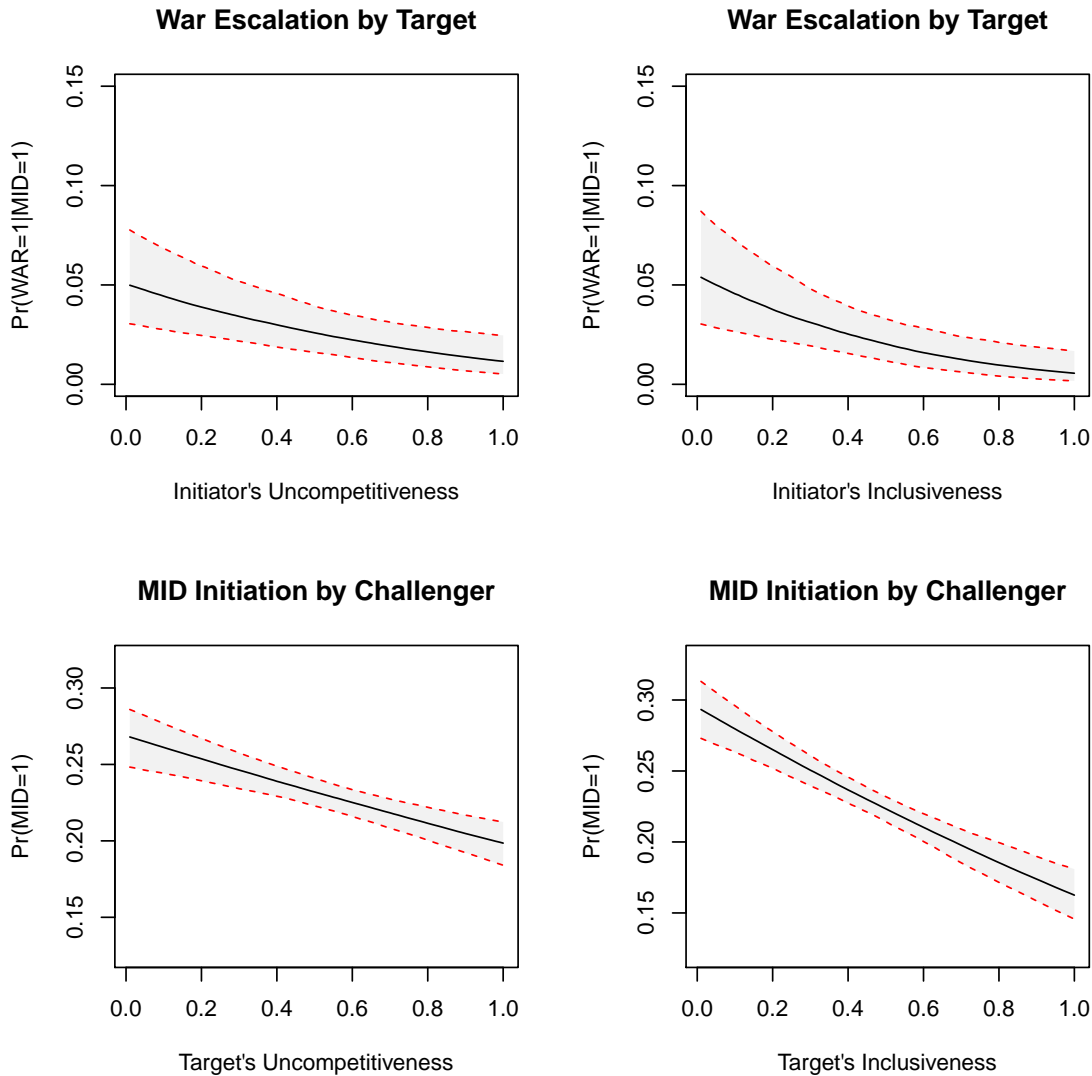
Next rather than analyzing all MID types, I analyze whether the hypotheses are also confirmed in conflicts that reach at least to a hostility level where initiator uses force. By shifting attention to Use of Force, firstly, we can avoid the geographical biases in reporting of MIDs. For example, the media may be more biased to report MIDs occurring in Europe than i.e. those occur in Central Asia. However, if a MID involves at least use of force, it is less likely to go unannounced in the international media regardless its geographic location. Secondly, employment of Use of Force allows us to gain precision in testing the theoretical dependent variable as increases in defense expenditures and related deterrence effect is more likely if the hostility level of conflict involves actual use of force rather than a threat or display of it. As can be seen, similar to the Table 5.1, results further confirm the theoretical prediction that uncompetitive regimes are unattractive targets. The coefficient estimate is negative and has slightly a higher magnitude than in the case of MIDs of all levels of hostility ( $-0.44$ ) and statistically significant ( $p < 0.001$ ). Figure 5.2 visualizes the impact of target's uncompetitiveness on Use of Force initiation. As can be seen, an increase in uncompetitiveness from 5th to 95th percentile decreases Use of Force initiation by 9 percent. The empirical evidence also shows that an increase in target's inclusiveness leads to a statistically significant reduction in the state A's decision to initiate a conflict ( $-0.96$ ,  $p < 0.001$ ). An increase in target's inclusiveness from 5th to 95th percentile leads to 18 percent reduction on the Use of Force.

Of course, regime variables are not the only predictors of the conflict initiation decision of states. The results point to that other factors promote conflict initiation behavior, too. First, pre-existing power relations have a strong influence on the initiation of a conflict. Consistent with previous studies, I find that as the capability ratio of challenger increases vis-à-vis a target,

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<sup>13</sup> Quantities of interest are estimated by Clarify algorithm (King, Tomz and Wittenberg 2000), where all the other variables are set to their observed values (Hanmer and Kalkan 2013) and then the resulting distributions from 1000 simulations are averaged out. This approach basically gives the overall average of the predicted probabilities and uncertainties around these estimates generated from each cell within the dataset.

Figure 5.1: MID INITIATION, WAR ESCALATION & CONTESTATION AND INCLUSIVENESS



**Note:** The upper two graphs present the predicted probability of war escalation by the target given a militarized interstate dispute (MID) is initiated by a challenger ( $Pr(WAR = 1|MID = 1)$ ). The two graphs on the bottom present the probability of a MID initiation by a challenger ( $Pr(MID = 1)$ ). The graphs are created from Table 5.1, Column 1 (MID Specification) and quantities of interest are estimated by Clarify algorithm (King, Tomz and Wittenberg 2000), where all the other variables are set to their observed values (Hanmer and Kalkan 2013).

conflict initiation by the challenger becomes more likely. To put it another way, nobody wants to attack a party that has a pre-existing advantage in terms of the capabilities. Moreover, there is a considerable evidence that contiguity increases the likelihood of conflict onset. This finding is in agreement with previous studies. We also observe that distance has a pacifying effect on the state A as the willingness and the opportunity for a conflict initiation reduces with it.

Having tested the predictions of the deterrence model against informational and constraint model related to conflict initiation, I now turn to the predictions related to war escalation. Constraint model expects that increases in a challenger's inclusiveness increases the target's war escalation utility, deterrence model expects has the diametrically opposite prediction that a challenger's inclusiveness decreases the target's war escalation utility and informational model does not have clear-cut predictions in this respect. Regarding the contestation dimension, the constraint model agrees on the direction of the relationship with deterrence model that uncompetitiveness of a challenger decreases the target's war escalation utility. However, this time, informational model has an opposite prediction: As a polity becomes more uncontested, a resolved challenger's threats becomes less distinguishable from those of unresolved as the domestic politics cannot send costly or credible signals. Given a challenger initiated a conflict, I assess how these two dimensions affect targets' war escalation probability. Upper part of Table 5.1, column 1 models the escalatory behavior by target given a MID initiation by state A and upper part of column 2 does the same for Use of Force initiation by state A. Confirming expectations of the deterrence and constraint models and disconfirming those of the informational model, the coefficient estimate of Initiator's Uncompetitiveness in the upper part of the Table 5.1, column 1 is negative ( $-0.88$ ) and statistically significant ( $p < 0.001$ ). This indicates that an increase in initiator's uncompetitiveness level is likely to deter war-escalatory behavior by the target state as expected by Hypothesis 7. This confirms the comparative statics predictions of the deterrence model that not only uncompetitive regimes increase their absolute amount of military build-up during a conflict as we have seen in previous chapter, their belligerence as evidenced in Table 5.1 is less likely to face a war-escalatory behavior. As can be seen in Figure 5.1, as initiator's uncompetitiveness increases from 5th percentile to 95th percentile, war escalation probability reduces by 4 percent on average within the sample. However, if we set all the remaining variables to their most conflict prone values, we observe that the same amount of change in uncompetitiveness leads to a change from 30.4 percent to 8.5 percent leading to 21.8 percent reduction in the war-escalation probability given a MID initiated by the challenger. This effect is even higher if the initiator's hostility level is even higher as can be seen in column 2. Column 2 tells us that Use of Force by an uncompetitive party leads to a higher reduction in the war-escalation probability by

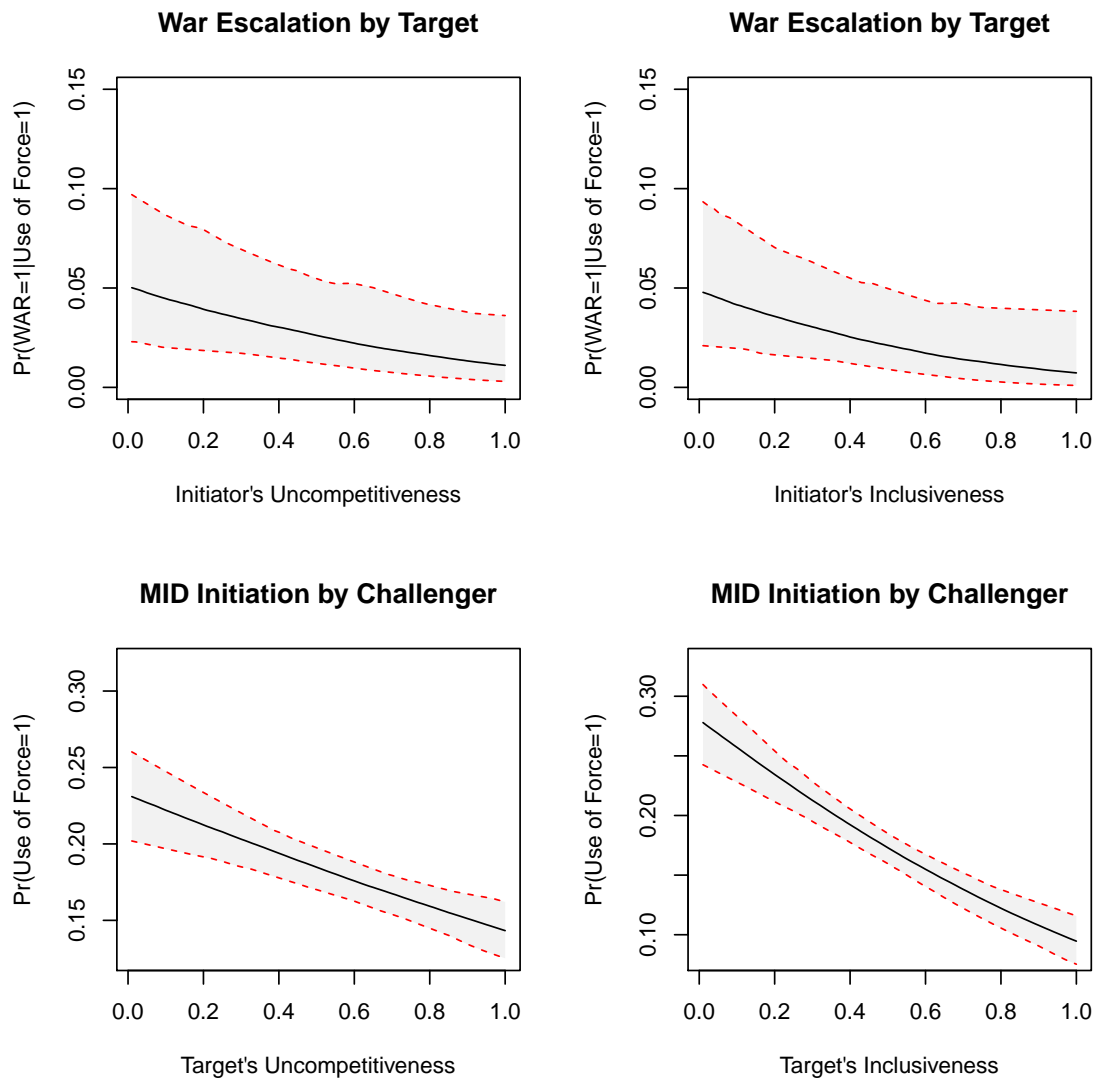


the target than the MIDs of all hostility levels. Figure 5.2 visualizes the impact of initiator's uncompetitiveness on target's war escalation probability given a MID involving actual use of force is already initiated by the former party. An increase in initiator's uncompetitiveness from 5th to 95th percentile leads to a 4 percent reduction in escalation probability when we average out the effect for all the observations. However, when we set all the other variables to their most conflict prone values, the same amount of change leads to a change from 59.2 percent to 21 percent, translating into 38.2 percent reduction in the war escalation probability given the initiator employs actual use of force.

We also observe a similar pattern for the initiator's inclusiveness level. An increase in initiator's inclusiveness level leads to decrease in the war-escalatory behavior by the target given a MID involving actual use of force initiated by state A ( $-1.24$ ) and this effect is statistically significant ( $p < 0.001$ ). This finding confirms Hypothesis 8 and indicates that an increase in initiator's inclusiveness level is likely to deter rather than constrain war-escalatory behavior by the target state and confirms the comparative statics predictions that inclusive regimes are not only good at channeling resources to war-spending, but also the disputes they initiate are less likely to elicit an escalatory behavior by state A and fails to confirm the constrain model. As can be seen in Figure 5.1, as initiator's inclusiveness increases from 5th percentile to 95th percentile, war escalation probability reduces by 5 percent when we average out the predicted probabilities for each observation with the observed value approach. However, when we set all the other variables to their most conflict prone values, war escalation probability reduces from 30.3 percent to 4.2 percent leading to 26 percent reduction. The pattern is present for state A's decision to initiate a MID that involves actual use of force. As can be seen in column 2, increases in inclusiveness level of the polity leads to a decrease in war-escalation utility of the target state ( $-1.21$ ,  $p < 0.001$ ). An increase in initiator's inclusiveness from 5th to 95th percentile leads to a decrease from 59 percent to 16.1 percent, translating into 42.9 percent reduction in the war escalation probability given the initiator employs actual use of force when we set all the other variables to their most conflict prone values.

In addition to domestic political variables, target's decision to escalate the conflict to a war also depends on international factors. Compared to minor-minor power interactions, target states are more likely to escalate a dispute into a war if either the initiator or the target is a major power. We also observe that initiator's pre-existing power advantage vis-à-vis target deters an escalatory behavior by the target state. This basically means that a relative increase in power distribution in favor of the initiator within a dyad has a pacifying effect on the target state as the utility the target derives from escalatory behavior against a strong opponent is monotonically negative. This

Figure 5.2: USE OF FORCE INITIATION, WAR ESCALATION & CONTESTATION AND INCLUSIVENESS



**Note:** The upper two graphs present the predicted probability of war escalation by the target given a challenger initiated a militarized interstate dispute (MID) that involve at least use of force ( $Pr(WAR = 1|Use\ of\ Force = 1)$ ). The two graphs on the bottom present the probability of a MID initiation that involves at least use of force by a challenger ( $Pr(Use\ of\ Force = 1)$ ). The graphs are created from Table 5.1, Column 2 (Use of Force Specification) and quantities of interest are estimated by Clarify algorithm (King, Tomz and Wittenberg 2000), where all the other variables are set to their observed values (Hanmer and Kalkan 2013).

finding is in agreement with the previous studies. Moreover, Alliance Portfolio similarity has a positive effect but is insignificant at any acceptable rejection region. The positive sign indicates that higher alliance portfolio similarity makes targets more hostile if a conflict is initiated against them by their allies. We also observe that territorial revisionist aims by the initiator elicits more escalatory behavior than any other revision types.

Table 5.2: WAR ESCALATION GIVEN MID INITIATION, ROBUSTNESS TESTS | 1876-2001

Model	Control Variable	Inclusiveness <sub>I</sub>		Uncompetitiveness <sub>I</sub>	
		$\beta$	S.E.	$\beta$	S.E.
<b>Model 1</b>	<i>Null Model</i>	-1.27	0.28***	-1.06	0.20***
<b>Model 2</b>	<i>Major Power Initiator-Major Power Target</i>	-1.28	0.29***	-1.07	0.21***
<b>Model 3</b>	<i>Major Power Initiator-Minor Power Target</i>	-1.21	0.24***	-0.84	0.17***
<b>Model 4</b>	<i>Minor Power Initiator-Major Power Target</i>	-1.26	0.28***	-1.08	0.20***
<b>Model 5</b>	<i>Initiator's Share of Capabilities</i>	-1.28	0.27***	-1.03	0.21***
<b>Model 6</b>	<i>Alliance Portfolio Similarity</i>	-1.32	0.40***	-0.78	0.31**
<b>Model 7</b>	<i>Revision: Territory</i>	-1.17	0.29***	-1.09	0.21***
<b>Model 8</b>	<i>Revision: Policy</i>	-1.19	0.28***	-1.10	0.20***
<b>Model 9</b>	<i>Revision: Government</i>	-1.35	0.28***	-1.14	0.20***
<b>Model 10</b>	<i>Revision: Other</i>	-1.25	0.28***	-1.06	0.20***
<b>Model 11</b>	<i>All Control Variables</i>	-1.24	0.35***	-0.88	0.25***

Each model consecutively adds a control variable and Model 11 includes all control variables. The coefficients and standard errors for Model 1-Model 5 are acquired from Table 5.7, for Model 6-10 are acquired from Table 5.8 in the appendix and for Model 11 are acquired from Table 5.1 Model 1.

The results in this section provides considerable support for the theoretical prediction that targets avoid war whenever possible if they anticipate that the initiator is more likely to increase their defense expenditure and decrease their chances of winning as well as increase the destruction associated with superior military strength they would face. I show that the main predictors from which leaders to extract this information is the opponent's inclusiveness and contestation level. At this point it is important to assess the robustness of these results to inclusion of various control variables. First, I start with the null model where there are no regressors other than inclusiveness and contestation variables within the war escalation equation. As can be seen in Table 5.2, Model 1, within the null model, both regressors are negative and significant ( $\beta_{\text{Inclusiveness}}^{\text{Initiator-MID}} = -1.27, p < 0.001$  and  $\beta_{\text{Uncompetitiveness}}^{\text{Initiator-MID}} = -1.06, p < 0.001$ ) indicating that initiator's inclusiveness and uncompetitiveness levels significantly reduce the war-escalatory behavior by the target given a MID. The features of democracy, more or less, pull each other to different directions. Whereas inclusiveness of a polity drives democratic deter-

Table 5.3: WAR ESCALATION GIVEN USE OF FORCE, ROBUSTNESS TESTS | 1876-2001

Model	Control Variable	Inclusiveness <sub>I</sub>		Uncompetitiveness <sub>I</sub>	
		$\beta$	S.E.	$\beta$	S.E.
<b>Model 1</b>	<i>Null Model</i>	-1.23	0.30***	-1.28	0.22***
<b>Model 2</b>	<i>Major Power Initiator-Major Power Target</i>	-1.23	0.32***	-1.29	0.23***
<b>Model 3</b>	<i>Major Power Initiator-Minor Power Target</i>	-1.12	0.26***	-1.00	0.18***
<b>Model 4</b>	<i>Minor Power Initiator-Major Power Target</i>	-1.22	0.30***	-1.30	0.22***
<b>Model 5</b>	<i>Initiator's Share of Capabilities</i>	-1.29	0.29***	-1.22	0.22***
<b>Model 6</b>	<i>Alliance Portfolio Similarity</i>	-1.35	0.44***	-1.04	0.33***
<b>Model 7</b>	<i>Revision: Territory</i>	-1.16	0.31***	-1.30	0.23***
<b>Model 8</b>	<i>Revision: Policy</i>	-1.20	0.31***	-1.35	0.22***
<b>Model 9</b>	<i>Revision: Government</i>	-1.33	0.30***	-1.37	0.21***
<b>Model 10</b>	<i>Revision: Other</i>	-1.23	0.31***	-1.29	0.22***
<b>Model 11</b>	<i>All Control Variables</i>	-1.21	0.38***	-1.01	0.28***

Each model consecutively adds a control variable and Model 11 includes all control variables. The coefficients and standard errors for Model 1-Model 5 are acquired from Table 5.9, for Model 6-10 are acquired from Table 5.10 in the appendix and for Model 11 are acquired from Table 5.1 Model 2.

rence, uncompetitiveness drives autocratic deterrence. We also observe almost identical results when we switch our focus from all MID to MID where the initiator employs actual use of force ( $\beta_{\text{Inclusiveness}}^{\text{Initiator-Force}} = -1.23, p < 0.001$  and  $\beta_{\text{Uncompetitiveness}}^{\text{Initiator-Force}} = -1.28, p < 0.001$ ) as can be seen in Table 5.3, Model 1. Next I introduce other control variables in the escalation equation one by one to the model and in Model 11, I introduce all the control variables. Despite small variation on the point estimates of inclusiveness and contestation variables, the effect is always negative and statistically significant when we introduce all control variables in a step-wise fashion. The upper bound in terms of magnitude for inclusiveness variable is  $\beta_{\text{Inclusiveness}}^{\text{Initiator-MID}} = -1.35, p < 0.001$  and the lower bound is  $\beta_{\text{Inclusiveness}}^{\text{Initiator-MID}} = -1.17, p < 0.001$ . This interval for the uncompetitiveness variable is also negative and significant and ranges between  $\beta_{\text{Uncompetitiveness}}^{\text{Initiator-MID}} = -0.78, p < 0.001$  and  $\beta_{\text{Uncompetitiveness}}^{\text{Initiator-MID}} = -1.14, p < 0.001$ . The confidence intervals for war-escalation given a use of force by the initiator are presented in Table 5.3 and very similar, hence, need not be discussed here<sup>14</sup>.

<sup>14</sup> The original tables from which these estimates are acquired are available in the Appendix.

Table 5.4: INCLUSIVENESS, CONTESTATION AND POLITY IV INDEX

ESCALATION TO WAR BY TARGET	Null Model	Polity IV	Null Model	Polity IV
<i>Initiator's Uncompetitiveness</i>	-1.06*** (0.20)	-1.47*** (0.34)	-1.28*** (0.22)	-1.74*** (0.37)
<i>Initiator's Inclusiveness</i>	-1.27*** (0.28)	-1.60*** (0.33)	-1.23*** (0.30)	-1.61*** (0.36)
<i>Initiator's Polity IV Score</i>		-0.01 (0.02)		-0.01 (0.02)
Constant	-0.36 (0.22)	-0.03 (0.27)	-0.23 (0.34)	-0.05 (0.32)
INITIATION BY CHALLENGER	MID		USE OF FORCE	
<i>Target's Uncompetitiveness</i>	-0.55*** (0.06)	-0.37*** (0.12)	-0.48*** (0.06)	-0.49*** (0.06)
<i>Target's Inclusiveness</i>	-0.67*** (0.08)	-0.63*** (0.08)	-0.71*** (0.08)	-0.68*** (0.08)
<i>Target's Polity IV Score</i>		0.01* (0.01)		0.00 (0.01)
<i>Capability Ratio A/B</i>	0.059*** (0.01)	0.057*** (0.01)	0.012* (0.01)	0.00 (0.01)
Constant	2.81*** (0.16)	2.71*** (0.17)	1.64*** (0.17)	1.63*** (0.17)
Observations	18,734	18,488	18,734	18,547
Censored Observations	15,866	15,688	17,012	16,810
Uncensored Observations	2,868	2,800	1,782	1,737
Log-Likelihood	-5,535	-5,374	-4,671	-4,515
$\chi^2$	20.2***	24.33***	19.4***	25.4***
$\rho$	-0.26***	-0.31***	-0.30***	-0.38***

± Contiguity, Distance, Peace Years and cubic splines for the INITIATION stage are not presented to save space. Standard errors corrected for clustering by leader-level dyads are in parentheses  
\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Additional analyses show that even when a standard measure utilized in the informational model and constraint model literatures (Polity IV) is introduced, results remain robust. As can be seen at Table 5.4, main independent variables of interest remain both negative (with a higher magnitude this time) and highly significant when we include Polity IV to both MID to War Escalation equation and Use of Force to War Escalation equation. Columns 1 and 3 in Table 5.4 present the null model for both equations again and Columns 2 and 4 includes Initiator's and Target's Polity IV scores. As can be seen, Initiator's Polity IV score has a negative but

insignificant coefficient in Escalation stage in both equations  $\beta_{\text{Polity IV}}^{\text{Initiator-MID}} = -0.01, p = 0.47$  and  $\beta_{\text{Polity IV}}^{\text{Initiator-Force}} = -0.01, p = 0.44$ ), whereas Initiator's inclusiveness and uncompetitiveness scores remain highly robust and significant in both cases and carry negative coefficients with even higher magnitudes. The bottom part of the table, presenting the results from the initiation stage, also confirms the robustness of inclusiveness and contestation to inclusion of Target's Polity IV score. As can be seen, Target's Polity IV score of a target has a positive and significant effect ( $\beta_{\text{Polity IV}}^{\text{Target-MID}} = 0.01, p = 0.06$ ) on MID Initiation and positive yet insignificant effect on Use of Force Initiation, whereas the dimension variables - inclusiveness and uncompetitiveness - remain still carry negative and highly significant coefficients across initiation stages of the two equations.

These results supports the conclusion that uncompetitiveness and inclusiveness when compared to alternative models and considered together give credence to the role of these dimensions as the source of deterrence in general and direct-general and direct-immediate deterrence in particular<sup>15</sup>. However, in this setting it is hard to distinguish the observable implications of deterrence model and constraint model on the role of contestation dimensions. Both models have the confirmed prediction of contestation as a source of foreign policy liability as opposed to the unconfirmed predictions of the informational model. A non-directed dyadic analysis gives us additional leverage on whether contestation decreases inter-polity peace as predicted by the deterrence model or increases as predicted by the constraint model. Moreover, this also serves to accomodate the empirical findings within the mainstream democratic peace research framework, hence, I now turn to non-directed dyadic analyses.

### 5.5.2 Non-directed Dyadic Analyses

I estimate the following Logistic Regression Model to test the predictions of the model regarding the conflict-onset:

$$\Lambda(\text{Conflict Onset} = 1) = (1 + \exp[-k/s])^{-1}, \text{ where } k = \beta_0 + \sum_{i=1}^k \mathbf{x}_{i,t} \beta_i + \sum_{i=k+1}^{k+n} \mathbf{z}_{i,t} \gamma_i$$

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<sup>15</sup> In recent years, we have observed an increased attention in political science for the empirical implications of theoretical models. The pioneering study of Signorino (1999) in political science and the subsequent developments (Bas et. al. 2008; Lewis and Schultz 2003; Kenkel and Signorino 2011; Bas 2012) have led scholars in International Relations to consider the strategic aspect of various social phenomena and the data it generates and with the way we model it. In accordance with these studies, I present the results from the strategic probit estimation at Table 5.11, which further the confirms the robustness of results reported above.

where  $\vec{x}_{i,t}$  is a vector of Inclusiveness Low, Uncompetitiveness Low, Inclusiveness High and Uncompetitiveness High and  $\vec{z}_{i,t}$  is a vector of control variables: composite Polity IV index, capability ratio, inter-capitol distance, contiguity, major power status, peace years and cubic splines.

Table 5.5 analyzes the impact of inclusiveness and uncompetitiveness on the probability of a Fatal Militarized Interstate Disputes (MIDs). MIDs involve explicit threats, displays or actual uses of military force (Jones, Bremer & Singer 1996, 163). Rather than solely analyzing all MID types, I also look at whether the hypotheses are confirmed in conflicts that have at least one battle-related death, namely Fatal MIDs. By shifting attention to Fatal MIDs, firstly, the biases in reporting of MIDs can be avoided. Secondly, use of fatal MIDs allows us to gain precision in testing the theoretical dependent variable. A reduction or increase in war effort is more relevant when there is an actual fight involving deaths than the cases involving just “explicit threats”.

Table 5.5: INCLUSIVENESS, CONTESTATION AND FATAL MID ONSET

FATAL MID ONSET	Model 1		Model 2		Model 3		Model 4	
<i>Uncompetitiveness Low</i>	-0.63	(0.23)***	-0.93	(0.22)***	-0.59	(0.23)***	-0.87	(0.22)***
<i>Inclusiveness Low</i>	-1.36	(0.31)***	-1.40	(0.31)***	-1.30	(0.31)***	-1.29	(0.32)***
<i>Uncompetitiveness High</i>	2.22	(0.30)***	2.32	(0.32)***	2.58	(0.44)***	2.91	(0.43)***
<i>Inclusiveness High</i>	-0.03	(0.33)	-0.48	(0.34)	-0.07	(0.34)	-0.53	(0.35)
<i>Polity IV Low</i>	-	-	-	-	0.02	(0.02)	0.03	(0.02)
<i>Relative Capability</i>	-0.50	(0.05)***	-0.26	(0.05)***	-0.51	(0.05)***	-0.27	(0.05)***
<i>Distance</i>	-0.39	(0.05)***	-0.49	(0.06)***	-0.38	(0.05)***	-0.49	(0.06)***
<i>Major Power</i>	-	-	1.77	(0.18)***	-	-	1.81	(0.18)***
<i>Contiguity</i>	-	-	3.29	(0.20)***	-	-	3.27	(0.20)***
<i>Constant</i>	-0.81	(0.41)**	-3.64	(0.52)***	-1.05	(0.45)**	-3.94	(0.54)***
Observations	98,723		723,638		98,030		714,629	
Politically Relevant	Yes		No		Yes		No	
Pseudo R <sup>2</sup>	0.18		0.28		0.19		0.28	
Log-Likelihood	-1865		-2300		-1827		-5831	

Peace Years and Cubic Splines are not shown to save space.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Model 1 in Table 5.5 presents the effect of inclusiveness and uncompetitiveness with a sample of politically relevant dyads - dyads that are either contiguous by land or includes at least one major power. As can be seen the coefficient of UNCOMPETITIVENESS<sub>LOW</sub> has the negative sign (-0.63) as predicted by Hypothesis 11 and is highly significant ( $p < 0.01$ ), meaning that uncompetitive regimes are more likely to be more peaceful than competitive political regimes as predicted by the deterrence model as opposed to the constraint model. INCLUSIVENESS<sub>LOW</sub> has the negative



Table 5.6: INCLUSIVENESS, CONTESTATION AND ICB CRISIS ONSET

CRISIS ONSET	Model 1		Model 2		Model 3		Model 4	
<i>Uncompetitiveness Low</i>	-0.96	(0.15) <sup>***</sup>	-0.92	(0.13) <sup>***</sup>	-0.95	(0.15) <sup>***</sup>	-0.94	(0.13) <sup>***</sup>
<i>Inclusiveness Low</i>	-0.39	(0.17) <sup>**</sup>	-0.31	(0.16) <sup>*</sup>	-0.56	(0.18) <sup>***</sup>	-0.46	(0.16) <sup>*</sup>
<i>Uncompetitiveness High</i>	2.25	(0.20) <sup>***</sup>	2.92	(0.19) <sup>***</sup>	0.58	(0.33) <sup>*</sup>	1.30	(0.32) <sup>***</sup>
<i>Inclusiveness High</i>	0.09	(0.27)	-0.52	(0.24) <sup>**</sup>	0.19	(0.27)	-0.44	(0.24) <sup>*</sup>
<i>Polity IV Low</i>	-		-		-0.09	(0.02) <sup>***</sup>	-0.09	(0.01) <sup>***</sup>
<i>Relative Capability</i>	-0.35	(0.03) <sup>***</sup>	-0.30	(0.03) <sup>***</sup>	-0.35	(0.03) <sup>***</sup>	-0.30	(0.03) <sup>***</sup>
<i>Distance</i>	-0.15	(0.04) <sup>***</sup>	-0.57	(0.04) <sup>***</sup>	-0.15	(0.04) <sup>***</sup>	-0.56	(0.04) <sup>***</sup>
<i>Major Power</i>	-		3.01	(0.10) <sup>***</sup>	-		2.98	(0.10) <sup>***</sup>
<i>Contiguity</i>	-		1.77	(0.11) <sup>***</sup>	-		1.76	(0.11) <sup>***</sup>
<i>Constant</i>	-1.75	(0.33) <sup>**</sup>	-2.09	(0.34) <sup>***</sup>	-0.98	(0.33) <sup>***</sup>	-1.35	(0.36) <sup>***</sup>
Observations	86,292		683,345		85,644		674,722	
Politically Relevant	Yes		No		Yes		No	
Pseudo R <sup>2</sup>	0.18		0.28		0.18		0.28	
Log-Likelihood	-4140		-5904		-4075		-5831	

Peace Years and Cubic Splines are not shown to save space.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

sign ( $-1.36$ ) as predicted by Hypothesis 12 and is highly significant ( $p < 0.01$ ), meaning that inclusive regimes are more likely to be more peaceful than non-inclusive regimes as expected by both constraint and deterrence models.  $UNCOMPETITIVENESS_{HIGH}$  has the predicted positive sign (2.22) and is highly significant ( $p < 0.01$ ), meaning that holding  $UNCOMPETITIVENESS_{LOW}$  constant, any differential change in the dyadic contestation score will lead to a heightened likelihood of conflict as predicted by the deterrence model and this is diametrically opposed to constraint model's prediction.  $INCLUSIVENESS_{HIGH}$  is, however, not significantly different from zero. Model 2 in Table 5.5 estimates Model 1 for the complete sample and adds major power and contiguity variables. The signs and significance levels of all variables are very similar to those in Model 1.

Table 5.6 goes beyond militarized interstate disputes and analyzes crisis onset as defined by International Crisis Behavior (ICB) project. A crisis occurs when key decision-makers in a state “perceive a threat to one or more basic values, along with an awareness of finite time for response to the value threat and a heightened probability of involvement in military hostilities” (Brecher and Wilkenfeld 2000, 3), whereas MIDs involve only explicit threats, displays or actual uses of military force (Jones, Bremer & Singer, 1996, 163). Even though using MIDs have been the norm within the onset literature, using ICB crises has the key advantage of accounting for cases of conflict initiated intentionally by key decision-makers, rather than unintentional ones such as



caused by low rank military officials at borders. Moreover, Hewitt (2003, 689) suggests that when theories are supported in both MID and ICB settings, results can be seen more confidently and not as a function of any idiosyncrasies in one particular conceptualization, therefore, further ensures robustness of results across various definition of conflict. Model 1 tests the propositions with the politically relevant sample and Model 2 with the complete sample. Results are similar to those in Model 1 and Model 2 in Table 5.5.  $UNCOMPETITIVENESS_{LOW}$  and  $INCLUSIVENESS_{LOW}$  carry the predicted negative sign and both variables are significant in both models.

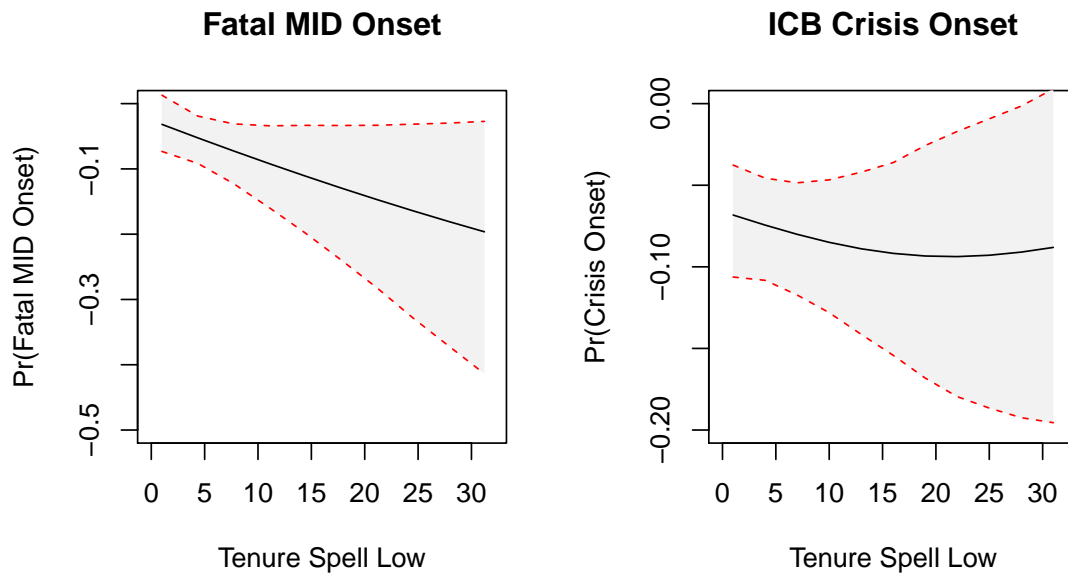
These two findings simultaneously explain the presence of autocratic peace and democratic peace, whereas the negative sign on  $UNCOMPETITIVENESS_{LOW}$  indicates a peace among autocracies, the negative sign on  $INCLUSIVENESS_{LOW}$  variable explains a peace among democracies<sup>16</sup> and these results when considered together with directed-dyadic analyses support the deterrence model over both constraint model and informational model. These results hold firm when considered against the more standard measure Polity IV employed to test the constraint and informational models<sup>17</sup>. As can be seen at Model 3 and Model 4 at Table 5.5, regardless of the samples used - politically relevant or full sample -  $INCLUSIVENESS_{LOW}$  and  $UNCOMPETITIVENESS_{LOW}$  have very similar negative point estimates and both are highly significant ( $p < 0.001$ ), meaning that dyadic inclusiveness and dyadic uncompetitiveness decrease the probability of states to become involved in a fatal MIDs against each other whereas when these variables are controlled for,  $POLITY IV_{LOW}$  - the more standard regime variable utilized in IR scholarship - is both positive (0.02 in politically relevant sample and 0.03 in full sample) and insignificant ( $p > 0.1$ ) in any acceptable region. The ICB Crises robustness analyses with Polity IV Low variable in Model 3 and 4 of Table 5.6 confirm the robustness of dyadic inclusiveness and uncompetitiveness with their negative and significant coefficients. Polity IV Low in these analyses, however, are negative and significant. The conclusion we can draw is that dyadic uncompetitiveness and dyadic inclusiveness explains autocratic and democratic peace simultaneously and other properties of regime type not captured by these two dimensions do not have a robust effect on peace when we compare ICB crises and Fatal MIDs together. In addition to these original analyses, the theoretical model predicts uncompetitive regimes to be even more peaceful if the number of years leaders remain in office - tenure spell low - is higher. Figure 5.3 presents the conditional effect of  $TENURE SPELL_{LOW}$  and

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<sup>16</sup> When Table 5.5 and Table 5.6 are truncated to share only the non-listwise deleted sample, results remain very similar to those in the corresponding tables. The analyses are available upon request.

<sup>17</sup> The results with these analyses suffer from multicollinearity when we include Polity IV High as Uncompetitive Low and Polity IV High have a VIF score higher than 10. As a result, we cannot make valid inferences from these analyses when we control for Polity IV High, hence, it is omitted.

Figure 5.3: THE EFFECT OF DYADIC UNCOMPETITIVENESS GIVEN A TENURE SPELL LENGTH



UNCOMPETITIVENESS<sub>LOW</sub>. The results in Figure 5.3 shows that a shift from minimum of 1 year tenure spell low to a maximum of 48, leads to a 25 percent decrease on the probability of a Fatal Militarized Interstate Dispute Onset. Figure 5.3 also shows that a negative interactive effect is also present on an ICB Crisis Onset, however, the effect ceases to be statistically significant after 30 years<sup>18</sup>.

The next section turns to the implications of the theory and these empirical results for various areas of conflict literature.

## 5.6 CONCLUSION

These empirical evidence in this paper indicates that uncompetitiveness and inclusiveness of a target decreases the probability that a challenge will be issued against them in the first place. Within the context of the deterrence theory, these two dimensions allow leaders to generate direct-general deterrence: They are less likely to experience direct-general deterrence failure and challenger states are less likely to engage in actions of limited probes such as threat to use force

<sup>18</sup> This finding is likely to be driven by the lower frequency of observations from 30 year tenure to 50 year given the sample for ICB Crisis analyses covers 1918-2001.

or actual use of force: uncompetitiveness decreases the probability of the former by 7 percent and the latter by 9 percent, whereas the corresponding probabilities for inclusiveness dimension are 13 and 18 percents, respectively. As a result, we also draw the conclusion that contestation does not increase the informativeness of a signal at worst and it is canceled out at best by the deterrence mechanism that increase with lower levels of contestation due to the fact that leaders rarely engage in bridge-burning strategies (Trachtenberg, 2012; Snyder and Borghard, 2011) - a key assumption of the informational model (Fearon 1994). Moreover, the general picture for the constraint model is quite mixed: The finding that leaders operating in contested polities are more likely to be attacked is in line with the constraint model, the relationship between inclusiveness of a target and probability of a conflict initiation is, yet, puzzling for the constraint model. Hence, among others, the direct-general deterrence expectation derived from the deterrence model consistently fits to the data in initiation equation.

The results also show that challenger's level of uncompetitiveness and inclusiveness decreases war escalation utility of the target. These two findings provides additional evidence for the deterrence model and these two dimensions allow leaders to generate direct-immediate deterrence: They are less likely to experience direct-immediate deterrence failures and their targets are less likely to escalate a given crisis into a full-scale war: Considering the worst case scenario where war is most likely in terms of other variables, uncompetitiveness of a challenger decreases war escalation probability of a target by 21.8 percent if the challenger only issued display or threat to use force and 38.2 percent if the challenger employed a more resolved strategy, that is, actual use of force. Concerning informational model we again draw the same conclusion that contestation does not increase the informativeness of a signal at worst and it is cancelled out at best by the deterrence mechanism that increases as contestation decreases. Inclusiveness also has a persistent and strong role in decreasing war escalation utility of a target: Inclusiveness of a challenger decreases war escalation probability of a target by 23 percent if the initiator made a challenge short of actual use of force and by 42.9 if the challenge is issued with actual use of force - signalling a higher level of resolve. These two sets of results also indicate that the role of these two dimensions on direct-immediate deterrence success is more likely if the initiator's threat carries actual use of force short of force short of war and acknowledges that small-scale uses of force reveals a challenger's resolve better and help it to achieve its coercive aims more efficiently without resorting to an actual war. The picture for the constraint model is again mixed: whereas the predictions of the constraint model agrees with deterrence model regarding the contestation dimension, the empirical evidence confirms the deterrence model over constraint model regarding the inclusiveness dimension. Hence, among others, the direct-immediate deterrence expectation

derived from the deterrence model consistently fits to data in escalation equation.

Even though the directed-dyadic analyses inform us on the success of the deterrence model over constraint and informational models, the observable implications for constraint model and deterrence model were not distinguishable from each other regarding the role of contestation. Both models predict contestation as a liability for foreign policy making. However, the predictions of both models are opposite when it comes to inter-polity peace. Whereas the deterrence model predicts a peace among uncompetitive regimes as a result of deterrence generated by uncontested leaders' ability to channel their resources for war effort, hence, a war between two uncontested regimes are highly costly compared to the reward, constraint model expects a peace among competitive regimes through e.g. norm externalization and slow mobilization (Maoz and Russett 1993) as a result of the democracies' exercise of peaceful restraint. Even though the findings related to inclusive dimension is consequential on the explanatory power of deterrence model over constraint model, I employed additional analyses in a non-directed framework to see if constraint model works through contestation dimension. Non-directed dyadic analyses not only confirm the deterrence theory - dyadic uncompetitiveness decreases likelihood of conflict - but also a more nuanced implication of the theory that the negative effect of dyadic uncompetitiveness on conflict probability is even more pronounced as leaders' tenure increases - which allows leaders to stockpile an even larger war treasure: This effect of dyadic uncompetitiveness translates into 25 percent reduction of Fatal MID onset probability when we change the shorter tenure spell in a dyad from 1 year to 30 years. Even though we have seen inclusiveness dimension is in agreement with the constraint model in non-directed dyadic analyses, we infer that the main causal mechanism that lead to this peace is deterrence in directed-dyadic analyses -where both deterrence and constraint approaches predict different directions on the role of inclusiveness. So what do we conclude from these results? The deterrence model successfully explains *Autocratic Deterrence* and *Autocratic Peace* through uncompetitiveness dimension whereas *Democratic Deterrence* and *Democratic Peace* through inclusiveness dimension and it brought an answer to Bennet's (2006) call for a simultaneous explanation for both democratic and autocratic peace with the causal mechanisms of democratic and autocratic deterrence.

# APPENDIX

Table 5.7: WAR ESCALATION GIVEN MID INITIATION, ROBUSTNESS TESTS I

ESCALATION TO WAR BY TARGET	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Initiator's Uncompetitiveness</i>	-1.06*** (0.20)	-1.07*** (0.21)	-0.84*** (0.17)	-1.08*** (0.20)	-1.03*** (0.21)
<i>Initiator's Inclusiveness</i>	-1.27*** (0.28)	-1.28*** (0.29)	-1.21*** (0.24)	-1.26 (0.28)	-1.28 (0.27)
<i>Major Power Initiator-Major Power Target</i>		-0.68* (0.39)			
<i>Major Power Initiator-Minor Power Target</i>			0.52*** (0.10)		
<i>Minor Power Initiator-Major Power Target</i>				0.12 (0.14)	
<i>Capability Ratio A/B</i>					0.015 (0.02)
Constant	-0.36 (0.22)	-0.35 (0.24)	-0.52*** (0.20)	-0.35 (0.23)	-0.38* (0.23)
INITIATION BY CHALLENGER			MID		
<i>Target's Uncompetitiveness</i>	-0.55*** (0.06)	-0.55*** (0.06)	-0.55*** (0.06)	-0.55*** (0.06)	-0.55*** (0.06)
<i>Target's Inclusiveness</i>	-0.67*** (0.08)	-0.67*** (0.08)	-0.67*** (0.08)	-0.67*** (0.08)	-0.67*** (0.08)
<i>Capability Ratio A/B</i>	0.059*** (0.01)	0.059*** (0.01)	0.059*** (0.01)	0.059*** (0.01)	0.059*** (0.01)
Constant	2.81*** (0.16)	2.81*** (0.16)	2.81*** (0.16)	2.81*** (0.16)	2.81*** (0.16)
Observations	18,734	18,734	18,734	18,734	18,734
Censored Observations	15,866	15,866	15,866	15,866	15,866
Uncensored Observations	2,868	2,868	2,868	2,868	2,868
Log-Likelihood	-5,535	-5,532	-5,522	-5,535	-5,535
$\chi^2$	20.2***	17.3***	31.3***	22.5***	19.2***
$\rho$	-0.26***	-0.24***	-0.38***	-0.27***	-0.25***

± Contiguity, Distance, Peace Years and cubic splines for the INITIATION stage are not presented to save space.

Standard errors corrected for clustering by leader-level dyads are in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 5.8: WAR ESCALATION GIVEN MID INITIATION, ROBUSTNESS TESTS II

ESCALATION TO WAR BY TARGET	Model 6	Model 7	Model 8	Model 9	Model 10
<i>Initiator's Uncompetitiveness</i>	-0.78** (0.31)	-1.09*** (0.21)	-1.10*** (0.20)	-1.14*** (0.20)	-1.06*** (0.20)
<i>Initiator's Inclusiveness</i>	-1.32*** (0.40)	-1.17 (0.29)	-1.19*** (0.28)	-1.35*** (0.28)	-1.25*** (0.28)
<i>Alliance Portfolio Similarity</i>	0.49* (0.26)				
<i>Revision: Territory</i>		0.57*** (0.10)			
<i>Revision: Policy</i>			-0.43*** (0.09)		
<i>Revision: Government</i>				0.45*** (0.17)	
<i>Revision: Other</i>					-4.20*** (0.06)
Constant	-0.93*** (0.28)	-0.65*** (0.24)	-0.26 (0.22)	-0.32 (0.22)	-0.34 (0.22)
INITIATION BY CHALLENGER			MID		
<i>Target's Uncompetitiveness</i>	-0.39*** (0.08)	-0.55*** (0.06)	-0.55*** (0.06)	-0.55*** (0.06)	-0.55*** (0.06)
<i>Target's Inclusiveness</i>	-0.74*** (0.10)	-0.66*** (0.08)	-0.66*** (0.08)	-0.66*** (0.08)	-0.66*** (0.08)
<i>Capability Ratio A/B</i>	0.095*** (0.01)	0.059*** (0.01)	0.059*** (0.01)	0.059*** (0.01)	0.059*** (0.01)
Constant	2.36*** (0.20)	2.81*** (0.16)	2.81*** (0.16)	2.81*** (0.16)	2.81*** (0.16)
Observations	17,386	18,734	18,734	18,734	18,734
Censored Observations	15,886	15,886	15,886	15,886	15,886
Uncensored Observations	1,500	2,848	2,848	2,848	2,848
Log-Likelihood	-3,531	-5,516	-5,524	-5,532	-5,530
$\chi^2$	2.17	9.19***	15.5***	19.9***	21.2***
$\rho$	-0.14***	-0.19***	-0.23***	-0.26***	-0.26***

± *Contiguity, Distance, Peace Years* and cubic splines for the INITIATION stage are not presented to save space. Standard errors corrected for clustering by leader-level dyads are in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 5.9: WAR ESCALATION GIVEN USE OF FORCE, ROBUSTNESS TESTS I

ESCALATION TO WAR BY TARGET	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Initiator's Uncompetitiveness</i>	-1.28*** (0.22)	-1.29*** (0.23)	-1.00*** (0.18)	-1.30*** (0.22)	-1.22*** (0.22)
<i>Initiator's Inclusiveness</i>	-1.23*** (0.30)	-1.23*** (0.32)	-1.12*** (0.26)	-1.22*** (0.30)	-1.29*** (0.29)
<i>Major Power Initiator-Major Power Target</i>		-0.66 (0.42)			
<i>Major Power Initiator-Minor Power Target</i>			0.56*** (0.10)		
<i>Minor Power Initiator-Major Power Target</i>				0.11 (0.16)	
<i>Capability Ratio A/B</i>					0.035* (0.02)
Constant	0.15 (0.26)	0.13 (0.27)	0.00 (0.22)	0.16 (0.26)	0.11 (0.26)
INITIATION BY CHALLENGER			USE OF FORCE		
<i>Target's Uncompetitiveness</i>	-0.48*** (0.06)	-0.48*** (0.06)	-0.48*** (0.06)	-0.48*** (0.06)	-0.48*** (0.06)
<i>Target's Inclusiveness</i>	-0.71*** (0.08)	-0.70*** (0.08)	-0.70*** (0.08)	-0.71*** (0.08)	-0.71*** (0.08)
<i>Capability Ratio A/B</i>	0.012* (0.01)	0.012 (0.01)	0.012 (0.01)	0.012* (0.01)	0.012 (0.01)
Constant	1.64*** (0.17)	1.63*** (0.17)	1.63*** (0.17)	1.64*** (0.17)	1.64*** (0.17)
Observations	18,734	18,734	18,734	18,734	18,734
Censored Observations	17,012	17,012	17,012	17,012	17,012
Uncensored Observations	1,782	1,782	1,782	1,782	1,782
Log-Likelihood	-4,671	-4,668	-4,657	-4,670	-4,669
$\chi^2$	19.4***	16.5***	33.2***	19.4***	17.8***
$\rho$	-0.30***	-0.28***	-0.44***	-0.32***	-0.30***

± Contiguity, Distance, Peace Years and cubic splines for the INITIATION stage are not presented to save space.

Standard errors corrected for clustering by leader-level dyads are in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 5.10: WAR ESCALATION GIVEN USE OF FORCE, ROBUSTNESS TESTS II

ESCALATION TO WAR BY TARGET	Model 6	Model 7	Model 8	Model 9	Model 10
<i>Initiator's Uncompetitiveness</i>	-1.04*** (0.33)	-1.30*** (0.23)	-1.35*** (0.22)	-1.37*** (0.21)	-1.29*** (0.22)
<i>Initiator's Inclusiveness</i>	-1.35*** (0.44)	-1.16*** (0.31)	-1.20*** (0.31)	-1.33*** (0.30)	-1.23*** (0.31)
<i>Alliance Portfolio Similarity</i>	0.38 (0.28)				
<i>Revision: Territory</i>		0.56*** (0.11)			
<i>Revision: Policy</i>			-0.46*** (0.10)		
<i>Revision: Government</i>				0.41** (0.18)	
<i>Revision: Other</i>					-4.83*** (0.09)
Constant	-0.23 (0.34)	-0.19 (0.28)	0.26 (0.26)	0.20 (0.25)	0.16 (0.26)
INITIATION BY CHALLENGER			USE OF FORCE		
<i>Target's Uncompetitiveness</i>	-0.44*** (0.09)	-0.48*** (0.07)	-0.48*** (0.07)	-0.48*** (0.07)	-0.48*** (0.07)
<i>Target's Inclusiveness</i>	-0.95*** (0.12)	-0.70*** (0.08)	-0.70*** (0.08)	-0.71*** (0.08)	-0.71*** (0.08)
<i>Capability Ratio A/B</i>	0.050*** (0.01)	0.012* (0.01)	0.012 (0.01)	0.012 (0.01)	0.012* (0.01)
Constant	1.30*** (0.23)	1.63*** (0.17)	1.63*** (0.17)	1.63*** (0.17)	1.63*** (0.17)
Observations	17,933	18,794	18,794	18,794	18,794
Censored Observations	17,012	17,012	17,012	17,012	17,012
Uncensored Observations	981	1,782	1,782	1,782	1,782
Log-Likelihood	-2,832	-4,655	-4,661	-4,668	-4,667
$\chi^2$	4.36**	8.06***	13.9***	19.8***	19.3***
$\rho$	-0.25***	-0.22***	-0.27***	-0.31***	-0.31***

± *Contiguity, Distance, Peace Years* and cubic splines for the INITIATION stage are not presented to save space. Standard errors corrected for clustering by leader-level dyads are in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$



Table 5.11: STRATEGIC PROBIT ESTIMATION, 1876-2001

	MID	USE OF FORCE
<b>INITIATOR'S OUTCOME UTILITIES</b>		
<b>STATUS QUO</b>		
<i>Alliance Portfolio Similarity</i>	1.24*** (0.09)	1.11*** (0.11)
<i>Uncompetitiveness<sub>LOW</sub></i>	0.40*** (0.08)	0.54*** (0.12)
<i>Inclusiveness<sub>LOW</sub></i>	1.10*** (0.11)	1.73*** (0.15)
<b>WAR</b>		
<i>Target's Uncompetitiveness</i>	-7.69*** (1.60)	-12.09*** (1.14)
<i>Target's Inclusiveness</i>	-11.7*** (2.18)	-13.98*** (1.77)
<i>Capability Ratio A/B</i>	4.08*** (0.26)	2.18*** (0.20)
<b>TARGET'S OUTCOME UTILITIES</b>		
<b>WAR</b>		
<i>Initiator's Uncompetitiveness</i>	-1.86*** (0.38)	-2.16*** (0.38)
<i>Initiator's Inclusiveness</i>	-2.67*** (0.51)	-2.57*** (0.52)
<i>Capability Ratio A/B</i>	0.03 (0.04)	0.06* (0.03)
<i>Intercept</i>	-1.01*** (0.37)	-0.44 (0.37)
Observations	9,200	9,200

Bootstrapped standard errors are in parentheses.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Figure 5.4: ANNUAL CHANGES IN AVERAGE CONTESTATION AND INCLUSIVENESS

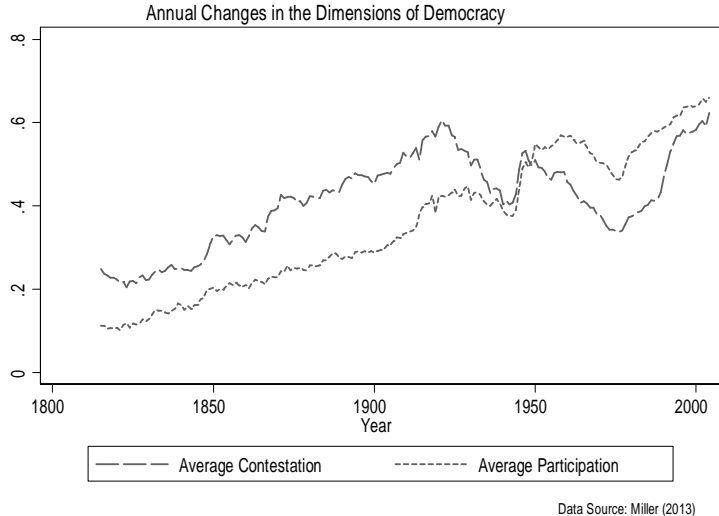
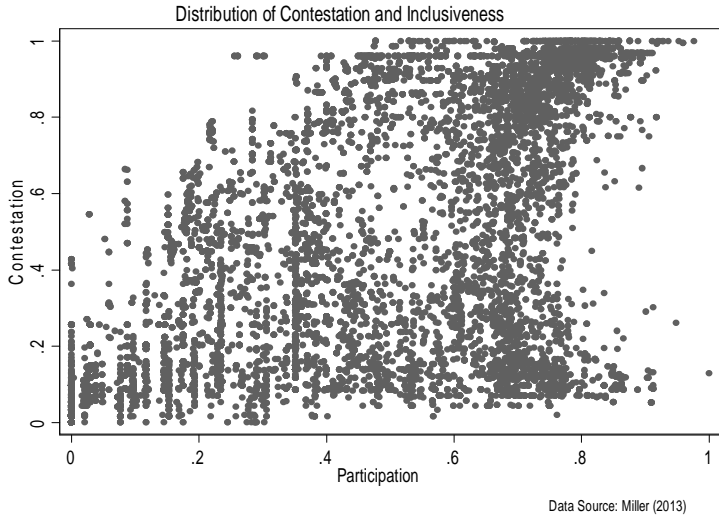


Figure 5.5: OVERALL DISTRIBUTION OF THE DATA



## Chapter 6

# THE ROAD TO GERMAN UNIFICATION

### 6.1 INTRODUCTION

OTTO VON BISMARCK, a previous ambassador to Russia and France and the last Imperial Chancellor of Prussia and the first of Germany, had an impact on the European map that lasted beyond his life. He became the minister-president of Prussia as a result of the constitutional crisis on the budgetary power of the legislation and the parliament's insistent non-approval of government's proposed budgets. At this particular point in the time, King Wilhelm Friedrich Ludwig, on the advice of the war minister Graf von Roon, appointed Bismarck as the minister president and foreign minister of Prussia. The Prussia Bismarck inherited as a prime minister was experiencing deadlocks in domestic politics within a conservative liberal dichotomy and humiliations in its international affairs. However, soon after he assumed his office, he put an end to this dichotomy and with a series of victories against Denmark, Austria, France and smaller Germanic states and transformed the political map of Europe within less than 10 years.

An intellectually and historically stimulating topic in itself, the wars of German unification

received widespread attention among politicians and historians across different eras. I reconstruct the historical narrative for this pre-war and war periods in Prussia, Denmark, Austria and France with the conceptual model developed in Chapter II and focus on the role of domestic political institutions on the three processes of interstate conflict: namely, conflict onset decision, war preparation as well as war outcome. This research design has important advantages over the large-N analyses presented in the preceding chapters (Chapter III-V). Intensive case study analysis allows us to examine the causal mechanisms in a way that is not possible in large-N cross-sectional time-series analyses. This design now only shows that there is a concomitant variation in connected causal chains as predicted by the theory but also demonstrates that the predicted causal processes are at work in each case by deriving evidence not only from historical documents as well as the prevailing consensus among authoritative historians. As a result, the focus of the chapter is based on the extraction of the causal processes by which contestation and inclusiveness features of domestic political system shaped the major processes of conflict behavior of Prussia and its enemies, Denmark, Austria and France immediately before and during the war.

I show that the conflict behavior in all of the cases hinged upon the cumulative effect of incumbent leaders' capacity to resist opposition challenges both during and preceding years of wars in mainly the uncontested regimes of Prussia in post-1862 and Austria in 1850. These cases can be compared to the competitive regimes of Prussia in 1850 and 1861, Austria in 1866 and France in 1861-1871 in three broad conflict processes: conflict initiation, war effort generation and war outcomes. As we will see in the following sections, whereas the regimes with lower levels of contestation were able to generate higher war effort, more prone to initiate conflicts and they won wars or forced their opponents to capitulate, the leaders operating under competitive regimes were relatively limited in their war effort generation and timid in conflict initiation behavior as well as in resolve and fragile throughout the war. The section on the Schleswig-Holstein War shows how the inclusiveness dimension in the Danish political system, the most liberal nation in Europe by the time, led to a similar outcome during the Schleswig-Holstein war. To follow the logic of the theoretical model, I first define the parameters for Germany and start to reconstruct the historical narrative within the lines of the conceptual model. This is followed by the process tracing of endogenous processes and the linkages among them, namely: government's budget discretionization capacity, war preparation, war onset and outcome.

## 6.2 SETTING THE STAGE

### 6.2.1 Contestation

In early 1848, the Prussian people were provoked with the idea of a revolution spreading from neighboring states: Switzerland experienced a civil war and protestant liberals won against the pro-status-quo conservative Catholic cantons, which gave them the liberal constitution of 1847. The news from Italy was the similar, insurgents in Italy seized the power in Palermo in January 1848. One month later, liberals in France overthrew the crown as a result of bloody protests and demonstrations and King Louise had to leave the throne. In the following month, Metternich fell as a result of revolutionary upheaval in Austria. As these news broke into Prussia, liberals started to pour into the streets and followed the suit with the demand of a constitution, civil liberties and legal reform, an unredeemed pledge from the preceding king Friedrich Wilhelm III, which remained unsettled until 1848 riots. To avoid further escalation, the new king Friedrich Wilhelm IV appointed a liberal prime-minister, Ludolf Champhausen, and approved the laws for universal male suffrage and indirect elections. Upon their success in persuading the King Wilhelm in universal suffrage in 1848, liberals started to demand for reform in the civil-military relations and revived the riots of 1848 again. This time, however, Wilhelm and his army, was not unprepared. In 1849, the second wave of protests was confronted by the Prussian troops and resulted in the bloody capitulation of revolutionaries. However, the memories of 1848 riots were so powerful that the army's main goal shifted from protection of the state from foreign opponents to the police force to repress the liberal opponents. Prussian politics had been under the shadow of the threat of liberal uprisings until late 1850s in streets and the threat of non-approval of government budget in Landtag - the Prussian parliament. The see-saw politics between Crown and parliament continued in favor of the liberals until the reign of Otto von Bismarck in 1862, who was to put an end to the domestic political tension in favor of the Crown and the conservative elite.

Only seven days after he assumed his position as a prime-minister, Bismarck gave his famous "blood-iron" speech in 30 September 1862 over parliament's rejection of the new military reform and the associated military expenditures: "the great questions of the day are not decided by speeches and majorities—that was the big mistake of 1848 and 1849—but by iron and blood" (Snyder 1958, 203) and they were not, with his ruthless policy against liberals at home and Denmark, Austria and France abroad. In the domestic scene, he embarked policies to bring liberals in parliament, bureaucracy and judiciary under heavy pressure. Liberals, had nothing, but to accept

the policies of the new minister because a revolution similar to the one in 1848 was beyond possibility against a King with some 200.000 well-trained soldiers and the new obedient bureaucrats behind him. Carr (1969, 91) records this period as the defeat of the Prussian liberalism against their ruthless minister. Bismarck was as powerful in his interactions with the King Wilhelm. His most prominent difference from his predecessors was simply that the constitutional crisis made the King heavily dependent on his new minister. On several different occasions, he also threatened King Wilhelm with resignation, a threat which would leave the King in a vulnerable position of direct interaction with the unconciliatory parliament. As a result, he was able to adopt policies even his King would not wholly agree (Clark 1969, 98). As an example, he was able to convince Wilhelm against attending a congress by Austria, which aimed at uniting lesser Germanic states under the umbrella of Austria. All of the Germanic states attended the congressional meeting, except the Prussian King as a result of the threat of resignation issued by Bismarck. This threat, however, was not the last one<sup>1</sup>. But more importantly, liberals were losing their grip on their power within the parliament and their influence throughout 1850s over the King's policies was beyond over by 1866.

### 6.2.2 Inclusiveness

Similar to the contestation dimension, inclusiveness of the political system experienced a change first 1848 and a reversal in 1849. The revolutionary waves across the Europe first led to a universal male suffrage in 1848 and as a result of the deadlock in the reform of the civil military relations and the subsequent armed confrontation between revolutionary forces and the Prussian troops, the King reverted the reforms on suffrage in April 1849. The new terms included the transformation of the electoral system into a plutocratic three class system as the basis of election of the lower house *Landtag*. In this new system, voters are classified according to their taxable income and each class selected one-third of electors who in turn elect the deputies in the parliament, where the richest five percent (153.000 voters) voted as many electors as the second - twelve percent of the population (360.000 voters) - and the third - eight-two percent of the population (2.691.000 voters)<sup>2</sup>. In addition to its plutocratic nature, the elections were indirect, involved an open voting rule as opposed to a secret ballot method. The three-class system and open voting rule was intro-

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<sup>1</sup> For details of the congressional meeting and the concerns of the Friedrich Wilhelm, see Carr (1969, 100).

<sup>2</sup> For further details of the electoral system and related resources in English and German see Rokkan, Stein, and Jean Meyriat. 1969. *International Guide to Electoral Statistics, Volume I: National Elections in Western Europe* (Guide International Des Statistiques Electorales, v. I: Occidentale) (English and French Edition). Mouton. pp. 128-139.

duced to pit the balance in favor of anti-revolutionary conservatives (Anderson 1954, 256), so that the government could exert enough pressure on voters to shift the balance within the parliament in favor of conservatives and deprive the liberals of increasing support from the public<sup>3</sup>. Despite these reversals in 1849 on the inclusiveness dimension, the budgetary powers of the lower house survived in the amendment to secure loans without which Prussia would be bankrupt (Carr 1969, 75). As a result, the winning coalition in effect had the only competence to approve the budgets the executive body can use during the subsequent years and could only affect the tenure of the government indirectly with rejection of budgets, hence, preventing the functioning of the state.

As a result, the parliament's only real power was its control over Prussian King's - thus, Bismarck's - expenditures. In order to secure its power and the budget spending associated with it, Bismarck had to appease at least two of the three classes in the new electoral system besides King Wilhelm, who has the control over Bismarck's tenure. His minimum winning coalition was variable depending on the issue at hand and he could either appease the first two classes - which make up the 17 percent of the male population or the first and third class - 87 percent of the males - or last two classes - which make up the 94 percent to pass resolutions on public spending. Despite these different configurations, Rokkan (2009, 32) notes that in practice the system worked against the will of the lower classes and that the alienation of the lower and middle classes from the national political system could not be worse than the one in the three-class setting, which was extremely unequal and had open and indirect elections. This electoral system in Prussia remained almost the same from 1849 to 1918.

### 6.2.3 Competence

The model operationalizes the competence as the leaders success in areas other than foreign policy in the current year and the total competence of the leader in both areas in previous years. Loosely defined, this parameter involves the leaders ability to appease the voters in previous years. The three class system in Prussia necessitated that Bismarck to appease at least two classes in the three class system. Bismarck's strategy was to increase the overall support for his domestic policies vis-à-vis the liberals in parliament by the use of the nation's coal and iron deposits: He achieved an unprecedented growth in the railway network along with associated sectors. For

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<sup>3</sup> The Prussian voters were divided into three groups, with membership dependent on the amount of property taxes each paid. As a result, fewer wealthy contributed more tax than did the lower class. As a result, the electoral system and consequently the political power was skewed in favor of the rural and urban wealthy. Since there was no provision for a secret ballot, most of the poorer categories voted for conservative candidates, who were favored by the landowners for fear of economic repercussions. For further details, see Anderson (1954).

example, the coalmines in Ruhr district grew at an average rate of 170 percent per year during 1860s. This also brought about economic and social transformation at a pace unparalleled in the history of the region. Moreover, this boom led to a robust expansion on a broader sectoral coordination across heavy industry, textiles and agriculture (Clark 2006). Bohn (1916) observed that Bismarck's intention to build steel rails was to increase the support of the worker-class and the richest class. They voted in favor of the prime-minister as the wages and the price of steel rails rose. "Even the most idealistic intransigent [did] not talk of revolutionary changes to people whose stomachs and pockets are both full " (Bohn 1916).

When Bismarck assumed his power, Prussia was the weakest of the five European Powers. A Times article in 1860 - two years before Bismarck assumed his office -observed that Prussian army was so weak that "no one count[ed] her as a friend; no one dread[ed] her as an enemy <sup>4</sup>". The article also summarized its international status then as "always leaning on somebody, always getting somebody to help her, never willing to help herself ... present in Congresses, but absent in battles...". Four years after this statement, Prussia first won a victory against Denmark(1864), then against Austria (1866) and finally France (1871). During each period not only did he change the face of Europe , but also bolstered his hold on to power as each victory gave his opponents as well as the winning coalition an indication about the competence of the new leader. Combined with the domestic economic performance, this effect was multiplied. The humiliations of 1850s and 1861 were losing their relevance year by year and the notions in Europe about Prussia were replaced by envy and pride thanks to the one of the most robust armies within the continent created by the new prime-minister.

## 6.3 ANALYSIS OF ENDOGENOUS PROCESSES

### 6.3.1 Discretionary Budget of the Leader

The model predicts that leaders operating under uncompetitive regimes and/or perceived highly competent vis-à-vis their domestic challengers create a budget solely for their own discretionary use and these resources get larger as the leaders' tenure continues and the government revenues increases. When Bismarck assumed power in 1862, he was at odds with the liberal parliamentarians of the *Landtag* over the military expenditures along with his demands of increases in the size of the army. Liberals were concerned about and against the military reform and the associ-

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<sup>4</sup> The Times, 23 October 1860, cited in Raymond James Sontag, Germany and England. Background of Conflict 1848-1898 (New York, 1938, reprint, 1969), p. 33



ated funds because they had a fixed belief that the government had the intention of using the the larger army for domestic purposes rather than foreign policy aims given their experience of the bloody oppression of 1849 protests by the army (Craig 1955, 167). Following the deadlock within the parliament, Bismarck gave his famous 30 September speech and indicated that the question is to be resolved by iron and blood. A prominent historian of Germany, William Carr, recorded this very moment as “Prussian liberalism was losing its battle against the ruthless minister Otto von Bismarck” (Carr 1969, 91). Given his upper hand and the lack of the credibility of an exit option for the liberals in the *Landtag*, Bismarck was able to detach military expenditures from the prerogative of the parliament and relinked this issue to the de facto prerogative of the executive body. So in effect the *Landtag* had very little control over the Prussian King or his prime-minister. He indicated that if the *Landtag* fails to do its duty, then the individual that held the monopoly of power - the Crown - can do whatever he needs to do continue for the normal functioning and activities of the state. He also declared that lack of an approved budget could not prevent state affairs from continuing, taxes from being collected, and state funds from being disbursed as usual and he said on another occasion that “we will take the money where we find it” (Craig 1955, 164) and Bismarck continued to fund his government’s expenditures without the approval of the parliament from 1862 to late 1866. In late 1866, even before Bismarck’s victory over Austria on July 1866, liberals in *Landtag* started to seek ways to compromise their differences with the government both because of the setback they experienced in recent Prussian elections and because Bismarck’s continuing disregard of the parliament’s decision on government expenditures, which meant the loss of the only operational competence of the parliament. In September 1866, *Landtag* retrospectively legalized the government’s spending from 1862 to 1866 with the Prussian Indemnity Law by a vote of 230 to 75, meaning that the liberals were losing their fight against Bismarck and all the subsequent budgetary decisions would be conducted under the shadow of this act:

**Article I.** The present law shall serve as an annex to the subjoining summary of the state’s income and expenditures for the years 1862, 1863, 1864, and 1865, instead of the constitutional and annual accounting for each fiscal year, as a basis for the accounting by the state administration.

**Article II.** The state administration grants indemnity with regard to the lawfully established and in due course publicized state budget, with the exception of the resolution of the *Landtag* on the release of the state administration from proposal of a yearly accounting, to such a degree, that, considering the responsibility of the state administration, it shall be held as if the stewardship had been managed in the above-mentioned time on the basis of a lawfully

established and in due course publicized state budget.

**Article III.** The state administration is hereby empowered to expend a sum up to 154 million thalers for the year 1866.

**Article IV.** The state administration is bound to place before the Landtag an accounting of the state income and expenditures for the year 1866–1867. (Snyder 1958, 210)

The ability of Bismarck to fund his government's expenditures without the approval of the *Landtag* constitutes an evidence - to borrow Collier, Brady, and Seawright (2004)'s terminology, a *causal process observation* - that confirms the positive effect of low levels of contestation on Bismarck's ability to generate a discretionary budget and examination of this link shows that the causal inference passes both the *hoop test* and *smoking gun test*<sup>5</sup>: Low levels of contestation was necessary and sufficient for Bismarck to generate a discretionary budget without the approval of the parliament. In the counter-factual presence of the high level of contestation in Prussia, Bismarck's action would have been counteracted with revolutionary uprisings. It follows that low level of contestation was both necessary and sufficient for the non-approved government spending because any counter-factual presence of a revolt against the policies of Bismarck would not only lead to a bloody suppression but also to a total collapse of the constitutional system. Gordon Craig (1955, 137) - a leading historian of modern Germany - interprets the Indemnity Act of September 1866 as "the capitulation from which middle class liberalism never recovered ...[without which]...the defeat of the liberals would have been accompanied by the termination of the constitutional system and a retreat to a system of complete absolutism". The liberals also had a major blow in the following elections of 1866. They did not only lose the support of the masses but also that of their central allies - the middle class - which was giving up its fight against Bismarck. In this elections, the liberals became a relegated minority within the parliament. In October 1866, liberals announced their complete acceptance of Bismarck's foreign policy goals adding that in domestic affairs, they would observe "the duties of a vigilant and loyal opposition" (Craig 1955, 177) and this was an open cheque from the liberal parliamentarians to Bismarck in his conduct of his foreign and domestic policies.

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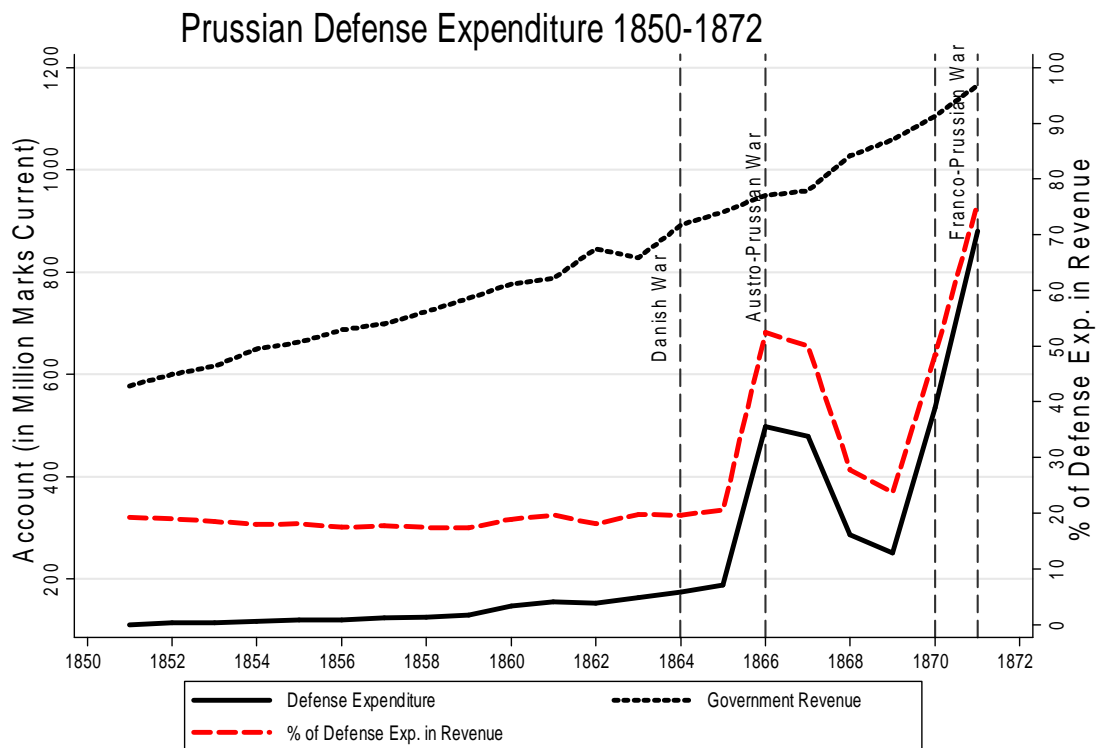
<sup>5</sup> These tests along with *straw-in-the-wind test* and *doubly decisive test* are a part of recent efforts in political science (e.g. Van Evera 1997; Collier 2011; Mahoney 2012) to refine the practice and improve the rigor of process-tracing strategy of qualitative research. These tools are introduced to rigorously evaluate the relevance and validity of a hypothesis given causal process observations extracted from qualitative data.

### 6.3.2 Three Wars and the War Effort

Previous discussion of Bismarck's discretionary resources indicates not only did he create a discretionary budget for his policies, but also these resources were allocated to military spending. The theory predicts that the effect of contestation on war spending is larger as the leader continues on his tenure. Given that Prussian polity during that time observed very low levels of contestation, a look at the military spending and other types of spending helps us to uncover this specific effect. In the first 10 years of Bismarck's tenure, Prussia experienced three different wars, war spending constituted 20 percent of the government revenue in Bismarck's second year, whereas in his fourth year this percentage steeply rose to first 50 percent during Austro-Prussian war and in eighth year to 70 percent - during Franco-Prussian War. Figure 6.1 shows the armament levels of Prussia from 1850 to 1872. As can be seen, the war time military spending of Bismarck was 20 percent of the government revenue in Danish-Prussian War of 1864, which he fought two years after he assumed the office, and more than 50 percent during Austro-Prussian War of 1866 - four years after he assumed his office - and more than 70 percent during the Franco-Prussian War of 1870-71 - 8 years after he assumed his office. This steep increase in military spending can be interpreted in several ways within the confines of the theoretical model.

One of the mechanics of the theory related to Bismarck's war spending is the substitution effect - that is allocation of resources to only one type of good brings diminishing returns over time so that the same amount of allocation resources to foreign policy spending increases the utility of the coalition more than domestic good spending. In this respect, we know that after Bismarck assumed power, Prussia has experienced a tremendous growth in its steel, iron and coal production (Bohn 1816). As a result, an increase in domestic good provision in previous years led to diminishing marginal returns for his coalition, hence, he started to divert more resources to invest in foreign policy goods so that their utility could be maximized with given the resource constraint. Within this framework, an increase in military spending from 20 percent of government revenue (corresponding to 175 million Marks) in 1864 to 50 percent (498 million Marks) in 1866 is meaningful, however Franco-Prussian War with 70 percent allocation of government budget (880 million Marks) constitutes a clear deviation from this effect and we cannot explain away a shift from 20 percent spending to 70 percent solely with the substitution dynamics, because if substitution effect was solely responsible for war spending of the leader, we would observe a balance between domestic and foreign policy spending. Bismarck's policy, however, was to keep the domestic good spending at a level that satisfies everyone so that no domestic

Figure 6.1: PRUSSIAN DEFENSE SPENDING UNDER BISMARCK



Source: Hoffmann (1965)

Data Source: Hoffmann, Walther G., (1965 [2006]) Das Wachstum der Deutschen Wirtschaft seit der Mitte des 19. Jahrhunderts. Kapitel: Der Verbrauch. Berlin/Heidelberg/New York: Springer, S. 722-723, 800-801. GESIS Köln, Deutschland ZA8250 Datenfile Version 1.0.0

challenger can find recruits for a potential revolution<sup>6</sup> and utilized the remaining resources for war spending and this amount increased over time tremendously as resources accumulated in his discretionary budget.

In March 1865 -after the Danish War, Bismarck indicated that the “Danish War was largely financed out through the budget surpluses in the previous two years; only 2 million thalers had ... to be sourced from the state treasury. The financiers [were] pressing loans ... but we could wage the Danish War twice over without needing one” (cited in Clark 2006) and this causal process observation serves as a confirmatory evidence for a *doubly decisive test* for the effect of Bismarck’s discretionary resources - as a function of leader spell, government revenues and low level of contestation - on war time military spending. Similarly, Austro-Prussian War was financed out through the discretionary budget of Bismarck as he was able to finance not only the normal expenditures of the government without any decrease in the domestic expenditures, but also he was able to finance his foreign policy expenditures which was around 50 percent of the government revenue. The War Minister of the time, Roon wrote in his memoirs that they had “enough money to give [them] a free hand in foreign policy, if necessary to mobilize the whole army and pay for the whole campaign. This len[t] to [their] conduct toward Austria the necessary aplomb” (Roon 1905, 364). Military spending for Franco-Prussian War in 1870 was also financed by the similar resources as explained in a Reichstag speech by Bismarck<sup>7</sup>. Expanding on this speech, *Spectator* newspaper on November 11, 1871 gives additional evidence that “Had Prussia not possessed a military treasure in 1870, ... the German armies might have [had] ... to retake the Rhine after it had been occupied..., instead of keeping the war confined to the enemy’s country beyond the German frontier” (Spectator 1871). Following the Franco-Prussian War, Bismarck legally institutionalized discretionary resources of the government for foreign policy with the proposition of forty millions of thalers just solely for mobilizations of the Army for a potential future war and upon the formation of the Germany Empire, the war chest was legally turned over to and kept in the Imperial Treasury (Bogart 1921, 22).

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<sup>6</sup> The domestic good spending remained within 37-40 percent of the total government spending throughout 1850-1872 (Hoffman 1965).

<sup>7</sup> On November 4, 1871, Bismarck also stated in Reichstag “If we had not had the treasure, we should not have been able to gain the two days’ start which prevented the invasion of the whole right bank of the Rhine” (Quoted in Hamilton-Grace 1910, 38). Hamilton-Grace (1910, 38) also notes that the extent of this treasure was £4.500.000.

### 6.3.3 Schleswig-Holstein Question and the War with Denmark

By the beginning of 19th century, the monarchy of Denmark consisted of the Kingdom of Denmark, the duchies of Schleswig, Holstein and Launenburg. Among these duchies, Schleswig, Holstein constituted together 60 percent of the 1.5 million-people population and 46 percent of the territory of Denmark. The population of the Kingdom of Denmark was exclusively Danish, those of Holstein and Launenburg, German and that of Schleswig, half-German and half-Danish. Moreover, Holstein was a member of German Confederation but Schleswig was not. As in other parts of Europe, national antagonisms began to deteriorate the relationship between the Danish and German elements within Denmark. The nationalist elements within the duchies looked forward to creation of a German state that does not only include Holstein and Launenburg - dominantly German duchies, but also Schleswig. The nationalist party in the Kingdom of Denmark aimed to annex Schleswig to Denmark. The complex legal status of the duchies was defined by two facts: A separation of both duchies from the rule of Denmark was forbidden and the duchies operated under a different law of succession from the Kingdom of Denmark - succession from a female line was possible in the Kingdom but not in the duchies. When it became clear that the future successor of Christian VIII, Frederick VII, would die without a male successor, the possibility of separation of both duchies led the government to announce the application of the succession law in Denmark to Schleswig. This was categorically denied by German population of Schleswig and Holstein. Holstein took the issue to German Confederation, but 1848 revolution in Prussia led to a three years of neglect of the problem. In March 1848 - the month the people in Prussia poured to streets for a revolution - nationalists in the kingdom of Denmark annexed Schleswig with the new constitution. Given the decision of the Kingdom of Denmark, German population of duchies started a revolt. Despite the victory against the rebels, the Danes were later compelled by Prussia, England and Russia to give up Eider-Dane - the nationalist party which dominated Danish politics from 1849 to the end of this war - aims to annex Schleswig with a series of negotiations in December 1851 and the resulting agreements of 1851-1852. The Danes promised that they would not annex Schleswig to the Kingdom nor take any steps directed to that end; the two German powers gave up the claims of the Schleswig-Holstein nationalist party. However, after four years, Danes were at the stage with another testing moment for Prussia. A common constitution including an election rule that ensures a Danish majority in the Danish Parliament was accepted in 1855 without submitting it to duchies and they were also not given a right to oppose the new constitution. This invited again an unrest in Schleswig-Holstein and German Confederation. On June 1, 1856, the prime-minister of Prussia Manteuffel and Buol of Austria indicated their objec-

tions for Constitution of 1855 (Steeffel 1932, 13). However, the dilatory response of the Danish minister of foreign affairs disabled the options for a negotiation, which completely disregarded the constitution issue. The net results of continuing the negotiations, or the lack thereof, was the de facto establishment of the authority of Denmark on Schleswig. In a series of negotiations over the seven years after the constitutional crisis, Hall, the Danish Minister of foreign affairs on a March 12, 1862 note rebutted the attempts to bring Schleswig into the negotiations and indicated that they consider “the situation of Schleswig as a domestic question of the Danish Monarchy in which Germany had no right of interference” (Steeffel 1932, 42).

Considering the parameters of the model, for Bismarck, the value of the territory ( $v$ ) was both the independence of German population from the Denmark Monarchy, but maybe more importantly, the naval base at Kiel, which would enable Prussia to dominate the North Sea and the Baltic as a naval superpower. For Denmark, the value of the territory ( $v$ ) was the integrity of the state, that is to keep 60 percent of the population and 40 percent of the territory intact. However, Denmark was able to negotiate non-Danish Holstein and Laurenburg, but not Schleswig, half of which consists of Danish population. As a result, any concessions that involve Schleswig was taken as a threat to the Danish national unity. In addition to its significance for the national unity of Danes, Schleswig’s Schlei river closed the entrance to Denmark from Germany (Wawro 1996, 40). Hence, no concession afterward was feasible both for emotional and strategic reasons. Therefore, the negotiated offer proposed by Denmark ( $\chi$ ) never included Schleswig. Even though the King Christian IX was willing to accept Austro-Prussian alliance’s ultimatum, nationalist Eider-Danes were not. So Denmark rejected the ultimatum and on 1 February 1864, the alliance crossed the Eider river and occupied Schleswig (Carr 1969, 108). Britain took the initiative for peace talks between the fighting parties and the parties of previous 1851-1852 negotiations. During the conference, the French proposal to partition Schleswig on national lines was rejected by Denmark, as a result, the conference ended on 25 June 1864. The war continued and ended by July 1864 with the overwhelming victory of Prussia and Austria. Following the War, Bismarck agreed for joint ownership of the territory with Austria.

Within Prussia case, the political system was moderately inclusive and Bismarck was able to discretionize large sums of money without a deposition risk, the role of contestation is partialled out from the role of inclusiveness for the causal mechanism that link contestation channel and war onset decision. On the other end, the case of Holstein-Schleswig War provides us an additional insight on the isolated role of coalition size and war onset behavior particularly for Denmark. Absolutism in Denmark had collapsed in June 1849 by a constitution that transformed the system into a form of restricted monarchy. Within the new setting, King Frederick VII agreed to share

his previously unlimited power with a parliamentary elected by universal male suffrage. The parliament was responsible for legislation and taxation, whereas the King still had the executive power and right to appoint his ministers without endorsement of the parliament, however, the ministers were still responsible to parliament for their conduct. Moreover, the King could no longer take action by himself, but needed an endorsement - a counter signature - of the ministers for the government's conduct (Rokkan and Meyriat, 1969). Jespersen (2004, 61) observes that the extension of franchise to all adult males at that period was related to the foreign policy concerns of the King, particularly against Prussia because the extension of the franchise to all adult males would translate into conscription of a sufficient supply of soldiers in case of a war. Moreover, King Christian XI and his prime minister Monrad came to office just two months before the onset of the war.

The large coalition led Denmark to be risk acceptant vis-à-vis its strong opponents because there was no other way for Monrad to keep his office, who is responsible to National Liberals in the parliament. This was very obvious in early days of the conflict when Russell of England invited Danish representatives for the London Conference for the peace talks, the Danish government was not willing to resolve the issue with negotiations. On a telegram from a British diplomat - Sir Augustus Paget - in Copenhagen to the British Foreign Office note on February 23, 1864: "Quaade [a Danish Diplomat] said that nevertheless the feeling of the country was and it was shared by most of the Cabinet, that Denmark was now in so bad a position for negotiating that it would be better to trust to the chapter of *accidents* for the chance of things turning their advantage (my emphasis). The hope was not so much in the spontaneous action of the different governments as in the force of public opinion is acting on them"<sup>8</sup>. Even though Denmark accepted peace talks and attended the London Conference and a temporary ceasefire was agreed after the fall of Vejle, it rejected the proposals for division of Schleswig along the national lines and the conference broke down as a result of the persistence of the opinion of National Liberals of Denmark that their state were being asked to concede more than necessary. This was followed by the collapse of the negotiations. Carr also (1969, 108) notes that rather than executive body, it was National Liberal Eider-Danes to blame for the collapse of the whole negotiation process. After the overwhelming defeat, Danish prime minister resigned on July 12, the Danish part agreed for armistice and peace negotiations at Vienna, where Danes ceded to Schleswig, Holstein and Lauenburg to Prussia through the Treaty of Vienna (Steeffel 1932, 252).

This case has an out of model parameter. The major powers were pro-status quo and were

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<sup>8</sup> Paget to Russell, No. 139, March 9, 1864, confidential (Record Office, London)(cited in Steeffel 1932, 203).



against to the annexation of Schleswig and Holstein to Prussia because of the duchies geo-strategic importance<sup>9</sup>. Moreover, Denmark had signed a treaty of a defense alliance with Sweden, so that the Danes could count on Sweden in case of German invasion of Schleswig. In order to break the resistance of Denmark and that of England, France and Sweden, Prussia allied with Austria, so that after invasion, Prussia would not have to withdraw from Schleswig as it happened during the 1848-1851 crisis<sup>10</sup>. Among these countries, “England also wished to see a Power in Europe strong enough to counterbalance France. That is the reason she sympathised with Austria as long as Austria seemed to be strong; That is the reason why I [Bismarck] told the King when he wished to carry out the “execution” in Denmark alone, “We must have Austria with us or England will join her against us” - and the is the reason why England is now turning toward us - because she sees in us the Continental contrepoids to France” (Whitman 1900, 95). Moreover, Bismarck before the war is reported to have said “We learned in year 1849 that it is bad to stand one against four. Two against three is a better relationship” (cited in Steefel 1932, 95). As a result, Bismarck was “not concerned with the politics of the *Landtag* and the press but only with the politics of Great Powers carried on by arms” (cited by Carr 1969, 105). Hence, Prussia dragged Austria to minimize the interference of major European power as he explained his worries with the following words:

The Schleswig-Holstein question was a nut on which we might well have broken our teeth. Denmark did not worry me; I counted on her making blunders and it was only a question of creating a favorable situation. Austria had to be brought to see that she would dissipate all sympathy in Germany if she didn't go with us; Russia had to be reminded of the services we rendered when Austria wanted to mobilize Germany against her; England had to be isolated so that she would confine herself to threats, as she always does when no one will pull the chestnuts out of the fire for her. The individual action were, in themselves, trifles; to see that

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<sup>9</sup> A New York Times article of 1863 summarizes the strategic importance of Denmark for major European powers as follows: “Whatever a continental state possesses her can become a formidable naval Power. Russia covets those harbors which would give her a naval station, and open a way for her fleets, even in Winter, to the Atlantic. Prussia and the German Confederacy are struggling continually toward the sea, and Kiel would make them naval Powers. France and England are, of course, opposed to these aspirations, and are, therefore, in favor of the undivided Kingdom of Denmark, as a bulwark at the entrance of the Baltic to its more powerful neighbors”. For further details see “The Schleswig-Holstein Question.” The New York Times, December 12, 1863.

<sup>10</sup> First Schleswig-Holstein War involved other European powers after Prussian invasion of Schleswig. Russia, unhappy with the alliance of Prussia with revolutionary nationalists in Schleswig, threatened Prussia to send Russian troops if it does not withdraw from the duchies. With a fear of a potential Russian protectorate in Denmark, British government also started pressure on Prussia. Added to this, Sweden and France followed the suit. As a result, given the amount of pressure from European major powers, Prussia had to evacuate its troops from the occupied duchies. For further details, see Carr (1969)

they dove-tailed was the difficulty (cited in Steefel 1932, 95).

Moreover, a unilateral annexation of Schleswig would not only lead to intervention of these countries but would also expose Prussia to a threat of enmity of Austria and other states in the Confederation.

#### **6.3.4 A Case of Prussian Capitulation: Austro-Prussian Rivalry and the Humiliation at Olmütz (1850)**

The Austrian-Prussian rivalry dates back to 1815, when the Congress of Vienna paved the way for the Austria-dominated German Confederation - a loose federation of thirty-nine German states. Prussians cooperated within the confederation until the revolution year of 1848 in Europe. During that time, most of the Germanic states were facing revolutionary threats at home and Austria was distracted by the revolts in various parts of its territory. Amid the revolutions in various parts of Austrian soil, in April 1849, Friedrich Wilhelm IV of Prussia offered to replace the Austria-led Confederation of 1815 with the Erfurt Union, which aimed at excluding Austria and unite lesser Germanic states under the Prussian leadership. By October 1849, most of the northern and central Germanic states accepted the proposal of the new union by Prussia. This action was deemed very provocative by Austria, which held that the constitution of 1815 still remained as the basis of relations between German states and that the Prussia's new union is unconstitutional. Despite this calls from Austria in early November, the Prussian King called the first Parliament of the Erfurt Union on March 1850 (Mosse 1958, 32). This led to a division of Germany into two rival camps and to a complete deadlock. In early October, Prussia's insistence of a separate union brought two parties into a brink of war. Given the immediate danger of war, Prussia immediately backed down and came to terms with Austria after its fierce ultimatum. Manteuffel of Prussia and Schwarzenberg of Austria met at Olmütz on November 29, 1850 and signed a convention that led to Prussia's full capitulation and acceptance of the dominance of Austria in Germany, full restoration of Austria-led German Confederation as well as reduction in the size of the Prussian Army<sup>11</sup>. The convention at the time was referred as Prussia's humiliation or shame at Olmütz and "considered as one of the most complete humiliations to which any European state has ever been subjected" (Snyder 1958, 195).

In Austria's initial neglect of the problem and its subsequent firm stance against the Prussian bid for hegemony laid the hard to defeat Hungarian and Italian revolutions within the empire. As

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<sup>11</sup> For the full text of the Convention of Olmütz, see Snyder, Louis L. 1958. Documents of German History. 1st edition. Rutgers University Press. pp. 195-196

the Austrian troops were channeled to overcome the revolutionary threat in Italy and Hungary, the empire initially was not in a position to spend energy on the Austro-Prussian rivalry on the German Question (Murad 1968, 151). Given this temporary window of opportunity and potential of an uncostly victory, Prussia started its bid to form the *Small Germany* that excludes multinational Austria from German affairs. However, the basis of the Erfurt Union - the inability of Austria at the time to lead the German states as a result of its domestic problems - was impaired by the unexpected achievements of the Austrian army first over the revolts in Italy and then with the help of Russian Czar Nicholas I's support of 100,000 soldiers in Hungary. Prussia exploited Austria's revolution vulnerability to such an extent that it declared that its army could help Austria in its battle against Magyars in exchange for Prussian hegemony in Germany. Franz Joseph, however, rejected this offer immediately and turned to Russia for help, the leader of which was in a fear of a revolution in general and the Hungarian revolution in particular as some of the Hungarian leaders were Poles and this could mean that the revolution could spill over to Russia (Murad 1968, 39). When domestically vulnerable Manteuffel and Frederick Wilhelm started their bid to Germany hegemony, they obviously did not have in mind that the Russians could come to Austria's aid and that the Hungarian revolution could be suppressed in such a short period of time. Only then were Franz Joseph and his minister Schwarzenberg able to concentrate the empire's resources for a potential war with Prussia and the dispute with Prussia turned into an open conflict in the fall of 1850.

The main reason behind the capitulation of Prussia was the highly contested nature of Manteuffel's hold on to power against a strong domestic opposition in the form of an imminent revolutionary threat and renewal of 1848 riots and the non-approval of the liberals in the parliament of the ordinary military budget. This belief of threat among the key decision makers in Prussia was so firm that the army served as a domestic police force for the next ten years within the country thus, Manteuffel did not have any option but to back down. Any commitment of soldiers for foreign policy even for very natural interests was perceived as leaving the regime weak in the face of a revolution. Manteuffel, who signed the Convention of Olmütz, also indicated that "a war [with Austria] would benefit only the liberals and the democrats and that by releasing the force of revolution once more, it would destroy the institution of monarchy in Prussia" (Craig 1955, 131). In addition to the revolutionary threat, the power of the liberals in the parliament also made it difficult to secure approval for even normal military budgets (Craig 1955, 126). Given these two major problems in the domestic scene of Prussia, Manteuffel formally abandoned the plans for a new German Union as the armed forces would be committed solely against revolution at the home front.

On the Austrian front, the balance between revolutionaries and Franz Joseph was vastly different. After the army crushed the revolutionary resistance, Franz Joseph and his minister were more confident to divert the troops for an interstate war than their Prussian counterparts<sup>12</sup>. Moreover, Franz Joseph was not limited by any representative institution in its decision for warfare and state finance. How Franz Joseph overcome the domestic calls for inclusiveness is quite illustrative of how confident he was in day-to-day operation of the state: when Joseph came to throne, he and his new minister Schwarzenberg promised for a commitment to a constitution “sincerely and without reservation” (Murad 1968, 130). The new parliament started to draft a constitution that vests sovereignty in people and power in the people’s representatives, which deprives the emperor of an absolute veto and abolish nobility as well as Catholicism as a state religion. When the deputies arrived at parliament for the approval of the new constitution, they found that the Reichstag was occupied by the soldiers and the Reichstag was dissolved. Instead of the too liberal constitution, Joseph introduced the secretly drafted autocratic March (1849) Constitution as a result of the first victory in Italy and the coming victory in Hungary (Murad 1968, 131). Hence, without any domestic limitation or deposition risk from both a dissolved parliament and the suppressed revolutions in Italy and with the help of Russia’s aid, in Hungary, Franz was able to turn his full attention to his Prussian counterpart. Upon the ultimatum from Austria, Frederick Wilhelm and his minister Manteuffel had no option, but to back down to avoid a potential liberal uprising within the country and a military defeat in the face of opposition’s stubborn policy to block increases in military spending vis-à-vis then less vulnerable Franz Joseph I. A similar attempt by Prussia was later on made in 1861 when the new Prussian minister of foreign affairs Count Bernstorff came up with a similar union policy of 1850 which aimed at unifying German states in a federal structure. However, angry protests from Austria brought possibility of a Second Olmütz and the plan was abandoned. Similarly, the polity hinged upon the power of the liberals in the parliament who had rejected military budget and associated reforms in 1860 (Craig 1955, 138). For the second time, Prussia failed to secure its bid for German hegemony (Clark 1934, 17).

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<sup>12</sup> Schwarzenberg never ceased to regret that the dispute had not come to war, which would have settled the question of German hegemony in favor of Austria for a longer period of time. For details about the war propensity of Schwarzenberg at the time, see Redlich, Josef. 1929. Emperor Francis Joseph of Austria: A Biography. The Macmillan company. p. 73 and Murad, Anatol. 1968. Franz Joseph I of Austria and His Empire. Twayne New York. pp. 152-153.

### 6.3.5 Austro-Prussian Rivalry and the Seven Weeks War (1866)

With the end of the Schleswig-Holstein War by the Vienna Peace Pact on October 30, 1864, Denmark unconditionally ceded the three duchies to Prussia and Austria. After the victory, Franz Joseph hoped to unite Schleswig and Holstein under the pro-Austria Prince Friedrich von Augustenburg and Bismarck had the intention of the complete annexation of both duchies to Prussia. These divergences in the aftermath of the war led to a year long diplomatic struggle and finally led to the Gastein Convention of August 14, 1865, according to which “until further arrangements are made” the Franz Joseph sold his rights over Lauburg to the King of Prussia and the administration of Holstein was given to Austria, that of Schleswig to Prussia. Moreover, the convention gave Prussia the right to establish a naval base at Kiel and several other similar rights <sup>13</sup>. In November 1865, Bismarck proposed Austrian government to let Prussia have the duchies for a money payment. Bismarck, however, did not receive any satisfactory response for his demand and was looking for excuses to start a war. Amid this already strained relations, in early 1866 the discord heightened to a tense diplomatic correspondences between the two parties. Given that both parties had not yet settled the future of the duchies definitely, the visit of Austrophile Prince Augustenburg to Austria-controlled Holstein - the main claimant of the duchies during pre-war period - created a discontent in Berlin. Prussian leaders interpreted this act as Austria aiming to settle the Schleswig-Holstein question with the issue of succession and accused Austria of deliberately supporting the claims of Augustenburg (Presland 1934, 202). At last, on February 1866, Bismarck formally concluded that Austria was determined not to meet the wishes of Prussia and war must settle the question. Austria, however, was trying to avoid the war. Even the Austrian governor of Holstein, General Gablenz, had been instructed by Franz Joseph to act in extreme caution, so that Prussia does not find a reason to fight: i.e. he was instructed not to allow anti-Prussian propaganda in favor of the Prince of Augustenburg neither on streets nor in the press. Moreover, the provocative troop mobilization of Prussia from Schleswig to Holstein in early 1866 was responded by Austrian General Gablenz’s move of his troops away from the Prussian soldiers to avoid any incidence that may be an excuse for Bismarck to declare war (Presland 1934, 202). Given the slower mobilization capacity of the Austrian troops and the approaching war with Prussia, Austria, in attempt to compensate its weakness in the speed, ordered the secret mobilization of the army to the North in early March - a move immediately noted by the Prus-

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<sup>13</sup> For the details of Vienna Peace Pact between Denmark and the two German powers for the terms of the peace terms and Gastein Convention regulating the temporary split of the duchies between Prussia and Austria, see Snyder, Louis L. 1958. Documents of German History. 1st edition. Rutgers University Press. pp. 203-205.

sian intelligence service (Presland 1934, 212). Between 27-29 March, Prussian troops responded in kind by mobilizing its army by the Austrian border. Given this reaction to its secret mobilization, Austria informed Prussia that the mobilization was to suppress the Jewish revolts and had no relevance to the ongoing deadlock with Prussia (Presland 1934, 219). Each party claimed its mobilization was defensive and would disarm if their opponent does the same. However, Austria's subsequent support for popular doctrine of self-determination in Holstein led to further aggression of Prussia and Prussia took this action as a declaration of war on the ground that it violates the joint control clause of Gastein Convention. Upon this move of Prussia, Austria called upon the Diet to deliberate the future of the duchies. Bismarck took this action as violating the Article V of the Convention of January 16, 1864, according to which, the future of duchies could be settled mutually and exclusively by Prussia and Austria (Steefel 1932, 261).

The defeat at the hands of Napoleon III and Victor Emanuel II of Sardinia-Piedmont in 1859 at the Austro-Sardinian War had forced Franz Joseph to move in the direction of constitutionalism. The course of constitutionalization was caused by foreign events. Firstly, the immediate reason was to improve the the already war-torn and bankrupt government budget. The government needed to borrow money, however, it did not seem possible until the government budget came under the control of a parliamentary. As a result, Franz Joseph on October 20, 1860 had approved the October Diploma. The author of the October Diploma, Emmanuel, was to summarize its reason as "Absolutism in bankruptcy put on a false constitutional nose in order to extract a few pennies from the public" (cited in Taylor 1976, 96). The second reason for the " liberal touch" - with the words of Franz in a letter to his mother - was to make Austria a more favorable leader for the Germany than the repressive regime of Prussia. As a result, in a couple of months later, Franz Joseph was to approve the February Patent. The Patent had two aims: to extract more tax resources from the population, attract more loans abroad with the increased role of bourgeoisie and to compete with Prussia for German Hegemony, because Austria had to appear as a progressive, modern, liberal state and more importantly a German state like Prussia (Murad 1968, 135). The parliamentary system did not bring in universal suffrage, only men with property could vote and women, like in Prussia, did not have a right to vote. The Patent essentially brought the touch of liberalism by "introduction of of popular representation into provincial diets by changing the hereditary into elective membership" (Murad 1968, 136). The system melt the two aims in the same pot, because the "German preponderance in the operation of the state was ensured by the representatives of the bourgeoisie, urban, industrial and commercial groups, which were largely German even in the non-German provinces" (Murad 1968, 136). Moreover, it did not recognize

the other nationalities, a change which provoked Magyars, Poles, Czechs and Italians<sup>14</sup>.

Direction into the constitutionalism was a self-imposed liberalism on the part of Franz Joseph and this was to lead to the greater repercussions in the supremacy in Germany, which diametrically opposed to its intended result of keeping its hold on the 1815 settlement of Vienna Congress. The German and liberal brand costed Franz a shift of the budget - including military expenditure decisions - from his own hands to the liberals within the parliament. The increasing importance of the parliament with the February Patent (Taylor 1976, 109), combined with the economic crisis since the war of 1859, decreased Franz's ability to run the state in its day-to-day routine - let alone discretionize resources for a future need. Because even though the German dominated parliament was to approve military budget to keep the revolts of other nationalities under control, bourgeoisie gradually decreased the defense expenditures of the state to discipline the budget. The result of all this liberal spectacle with the February Patent between 1861 and the end of 1865 was the jealous policy of the parliament which starved the military. The military budget in 1865 (96 million florins) was gradually decreased by the Parliament to the half of the budget allocated to military in 1860 (179 million florins) (Rothenberg 1976, 58). The civilians starved the military to such an extent that even the boots and clothing of the soldiers were depleted. The entire army was old-fashioned: Prussia had superior needle-guns whereas Austrian army had bayonets. Even though procurement of needle-guns was suggested to King Joseph in 1864 by his chief generals, the King had to reject it on the grounds of the budget constraint (Presland 1934, 204). Redlich (1929, 320) was to record this period as the inability of Franz Joseph to finance his army with the exclusion of "a policy of blood and iron", a policy which had been ruthlessly applied against liberals by Bismarck in the Prussian Landtag since 1862. As a result, given the German brand did not attract the support of lesser Germanic states other than Saxony to ally against the Prussian aggression, Franz Joseph had to give up soft-power politics of liberal and German brand, which had grimly disappointed Hungarians, and came to the terms with the importance of the military might. He rescinded the constitution and returned to authoritarianism with a manifesto of September 20, 1865 to release the pressure of liberals in the parliament and to win the support of his bellicose Hungarian subjects (Murad 1968, 139). In the last analysis, the two main pillars of constitutional experiments with October Diploma and February Patent - Germanness brand and liberalism - brought not only the end of the Austrian supremacy in Germany - and exclusion of

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<sup>14</sup> The new constitution and the parliament were not only uninteresting for the main ethnic groups within the empire, but also provocative. This changed the status of Hungary just to a province without a separate identity. Hungary, unwilling to accept the position of a province, refused to send delegates to the parliament. Poles, Czechs and Italians responded similarly (Murad 1968, 137).

it from the German affairs - but also the demise of the German supremacy within the post-war Austria-“Hungary” Empire. Added the economic crisis, this two pillar policy made Austria a very convenient prey for Prussia.

### **6.3.6 Louis Napoleon III, Liberal Empire and Franco-Prussian War of 1870-1871**

The seed for the war between France and Prussia was sown when the news for initial Prussian success against Franz Joseph’s army reached Paris. During the war, aware of the ruling position of France in European relations, Bismarck repeatedly consulted with France for the ‘gratuity’ expected by the French government as without her neutrality Prussian bid for the second phase of the formation of Germany – that is, formation of North German Confederation – would not be possible. Napoleon’s overall foreign policy for Prussia was reorganization of the Central Europe in such a way that limited Prussia to the Rhine, but still balanced by Austria. To these two giants, southern German states would form a third bloc (Alrecht-Carrie 1974, 133). Hence, throughout the Austro-Prussian war, Louis Napoleon did not make a demand from Prussia because formation of a tripartite Germany as separate states consisting of Prussia, Southern German states and Austria would change the balance of power in Europe in favor of the Frenchmen. What is more, a regime in Prussia based on nationality principle would be alienated from Russia (Taylor 1954, 173). However, the swift defeat of Franz Joseph’s army in Sadowa generated heated concerns for France for the first time since 1815 because Bismarck overturned the Austro-Prussian equality of power and seemed to tilt the balance of power sharply in favor of Prussia within the continent. The center of European gravity was shifting to Berlin (Guedala 1923, 379). As a result, the subsequent change in European balance of power could be acceptable to France if only her position was guaranteed. Hence, Napoleon first demanded the territory lost by the collapse of the Bonapartist regime in the settlement of 1815: the frontiers of 1814 (Saarbrücken and Landau), the territory of Bavaria and Hesse on the left Rhine (Williams 1957, 259). Bismarck, however, rejected everything and refused to surrender even a single German village. Napoleon, without any further escalation, back down immediately and blamed his foreign minister, Édouard Drouyn de Lhuys, and deposed him. With the fall of Drouyn, the risk of war disappeared. Napoleon lowered his expectation from the Austro-Prussian settlement and proposed a secret treaty for Prussian neutrality while France acquires Luxembourg and Belgium. The draft treaty did not imply a direct annexation of these two territories, but merely France’s right to negotiate the purchase of the territory, which would be ratified locally by plebiscites (Williams 1957, 260). In return, Napoleon offered a French defense



alliance for the territorial integrity of both France and Prussia. Bismarck's post-war aim was to normalize the new status-quo by humiliating France and to reclaim the German lands of Alsace and annex the southern German states (Howard 1961, 42). However, to ease the French anxieties, Bismarck ended the crisis by evacuating Prussian troops from Luxembourg as demanded by France and declared neutrality for France's territorial aims in Belgium. In exchange, Prussia could focus on the third phase of the German unification: the annexation of southern German states. However, for France this would mean a collapse of the tripartite-Germany strategy as Prussia would be left unchecked in the future and Napoleon did not accept this, the negotiations ended up in a deadlock (Taylor 1954, 176). The secret treaty draft, however, was filed by Bismarck for future use as it was useful to show it to Bavaria to prove that France's dubious intentions for southern German states and the secret treaty subsequently led Bavarian alliance with Prussia for the construction of the new North German Confederation (Guedalla 1923, 365).

Added to the momentary victory of Prussian army against Austrians, subsequent see-saw politics of Bismarck on Luxembourg question alarmed Napoleon III that a war with Prussia is on the way in near future. The obvious explanation for the Prussian victory on Austria army was that the Prussian army used needle-gun and once the French army is equipped with a breech-loading rifle its natural superiority as it was for the last 80 years would again be decisive. The deeper explanation for Sadowa was Prussia's success in training of a short-term army based on universal conscription, the army's swiftness in mobilization and order in its supply (Howard 1961). To survive in a war with such adversary, hence, France needed to surround herself with allies and adopt new reforms that introduce new standards of efficiency to the military administration and increase the size of the army with universal conscription<sup>15</sup>. These two objectives were, however, not easy.

For alliance, Napoleon first turned to Austria in 1867 and then to Italy in 1869 to form a tripartite alliance. The tripartite alliance would not only ensure a victory during a war with an army of 1.170.000 (370.000 French, 200.000 Italian and 600.000 Austrian) against the Prussian army, which consists of 850.000 soldiers (Plessis 1979, 169), but also ensure that Austria would no longer fear an attack from her adversary, Italy, from its south. However, divergent interest among parties led to a deadlock and after two and half years of negotiations with Austria and six months with Italy, Napoleon did not secure any alliance promise from either party. The balance of power within Austria had changed after Sadowa and the Hungarians now stronger within the regime

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<sup>15</sup> During the time, the France had a small professional army with long-period of service. The French practice was to take a certain number of men under arms, the size of which was fixed by the legislature. For further details of the problems of the military system in France, see Howard (1961, 8-29).

were hostile to any more investment for Germany (Taylor 1954, 194) because such a war would mean not only a quarrel with Prussia and her allies but also with Russia. Even though two and half years of negotiations produced a result, Franz Joseph, afraid of another unsuccessful war, was not willing to attack Prussia before the sixth weeks of the war (Howard 1961, 47). Italy's support for the tripartite alliance was conditional on French troop's evacuation of Rome. This was impossible for Napoleon on the grounds that this would mean he would lose the support of church in France, a loss which would not be compensated with any success in foreign policy (Taylor 1954, 196). Napoleon also turned to Russia and Britain for help, but could not find any active support from them either party. Isolated in his bid against Prussia, Napoleon had to turn inward and rely on his own strength and reform the military to raise an *army of a million* for the coming war.

Napoleon intended to improve both human and capital intense aspects of the military to match the Prussian counterpart in terms of quality of the weapons and the size of the men under arms. During the time, the French military law was based on a semi-conscription and a semi-professional system, according to which every Frenchmen on the reaching age of 20 was liable to the serve in an annual levy and the size of which was fixed from year to year by the Legislative body. Those who should serve in the army are determined by drawing lots. In practice, a number of men were exempted from military service for various reasons, while those who picked a bad number could pay for a substitute. Finally half of the men selected for the service had to serve for seven years and the remaining were sent back home on leave until required (Bury 1964, 170). However, the liberal concessions made to legislature, and the powerful opposition in it, made it difficult for Napoleon to get government-sponsored bills passed. Amid the imminent Prussian threat, the Legislative Body's attitude was no different. Napoleon first instructed his War Minister to introduce an army reform bill that aimed at an army of 1,232,000. This plan was unanimously rejected by the press and in the Legislative Body. Finally after a major revision, a watered-down version of was voted in 1868; practically the only innovation it introduced was the principle of a mobile National Guard, which, for lack of funds were never set up (Plessis 1979, 163). Between 1868-70, the Legislative Body decreased the amount of resources available for military expenditure, reduced appropriations and armaments and increased the size of the soldiers that are sent home on leave and the new liberal ministry that came to power under liberal Oliver on June 30th – 12 days before the war – proposed the reduction of the annual contingent by 10,000 men and the Legislative Body refused 13 million francs necessary for artillery (Howard 1961, 39). As a result, the reform efforts with the bill became innocuous (Wright 1960, 37). J.P.T Bury put the problem well: "Once, Napoleon contemplated dissolving the Legislative Body he thought better of such a

move (Bury 1964, 172-3). The war began in a tragic condition for France: isolated diplomatically, with 370.000 men at its disposal, 235.000 Napoleon could count on, outnumbered by the 850.000 men in the Prussian army. Consequently, the era for French supremacy in the continent ended in Sedan.

The collapse of the French army at Sedan was not a simply result of a crisis mismanagement but a direct result of the dictates of the domestic political system Napoleon decided to bring in early 1860 with the brand of Liberal Empire. Even though the previous regime was autocratic, it did not secure the human resources to remain truly authoritarian. Following the loss of his two key domestic allies – the Church and the business elite – as a result of French participation to Austro-Sardinian War against Italy, which was unfavorable to the interests of the Papacy, and domestic economic incompetence in late 1850s, he needed to open up the system to rally support as a substitute for the ones lost due to the foreign policy and economic policies (Artz 1940). This meant larger concessions and power-sharing by the weakened emperor over time and granting the right to vote budgets by the parliament and freedom of press<sup>16</sup>. However, the major change in France was on the opposition side. The regime was highly contested as a result of the recently granted press-freedom and the fact that the King's power vis-à-vis the domestic opposition in the legislature was eroding (Votes for the opposition increased four-fold whereas the votes for government decreased to 4.438.000 thousand against 3.355.000<sup>17</sup>). The press law was especially important and 150 new newspapers were created, with 120 of them hostile to the government (Zeldin 1958, 95).

Historians were to remark this decision as the grave error committed by their leader and his entourage (Gooch 1963; Taylor 1952; Wright 1960) and to retrospectively conjecture that Napoleon III should have reverted back to the pre-1860's closed and repressive order to avoid such a humiliating defeat in the hands of Bismarck (Bury 1964; Williams 1954). In this respect, Napoleon's close friend Baron D'ambes (1912) in his memoir, like the officials in Napoleon's clique, foresaw that "liberal imperialism was a mistake. A parliamentary constitution will bring the Emperor to ruin". Gooch (1963, 1), a prominent authority on the Second Empire, characterized the failures in foreign policy only with the progressive liberalism that came in the post-1860 period and he outlined the role of domestic liberalism in his opening sentences as: "Dramatic

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<sup>16</sup> The Corps Legislatif was first allowed to discuss the general orientation of the regime (1860), control budgetary processes (1861), make amendments (1866) and to criticize the government (1867). However, it did not have a power to depose the leader. The influence of the winning coalition along with its size increased relative to 1850s. For details see Plessis 1979

<sup>17</sup> For details see Plessis 1979

success in foreign policy were achieved by the emperor in the early, authoritarian phase of his rule, while later as he was progressively liberalizing the regime, failures came in rapid succession”.

The fact that Napoleon could not pass the army bill War Minister Niel prepared in 1866 constitutes a causal process observation. This project would have increased the nation’s fighting strength more than five times and if this was ruthlessly forced upon the nation, France would have ensure the victory for the coming war. However, Wright (1942, 45) notes that “such a policy would have brought revolution”. As a result, the army-bill was watered down repeatedly in search for a compromise between military and political necessity. Napoleon’s policy, however was to keep the army bill at a level that satisfies everyone so that no domestic opposition could find recruits for a potential revolution. This threshold was higher for Bismarck whereas for Louis Napoleon the domestic political system did not allow him to raise the bar for the military effort of the nation. We also directly observe that the hostile party leaders, even stronger, seized upon the question as a political weapon and used it to attract the support of the citizenry and exerted pressure on the legislators through the opposition press by exaggerating the defects of the army reform and concealing its advantages (Wright 1942, 35).

## **6.4 DISCUSSION AND CONCLUSIONS**

The two capitulations - Humiliation at Olmütz in 1850 and the Second (Humiliation at) Olmütz in 1861 - as well as the three wars allow us to closely examine the causal mechanisms put forward by the theoretical model. The capitulation cases allows us to see how actors rationally behave in line with the logic of the model. As a result, the historical interactions end in the very beginning node of the game theoretical model. The war cases, in this respect, allow us to examine the interactions and predictions in the subsequent nodes of the game theoretical model and see how actors would behave conditional on the failure in negotiation stage. The main empirical findings of the chapter is summarized in Table 6.1.

The cases of Humiliation at Olmütz in 1850 and the Second (Humiliation at) Olmütz in 1861 indicate that Prussia was not able to dissuade diverse social and political actors from challenging the regime as the ability of the regime to repress the opponents within were very slim. As a result of the revolutionary threat, a war in 1850 and in 1861 with Austria would mean additional military spending, King Wilhelm of Prussia, quite timid against the opposition, could not force the military expenditures to the unwilling parliament in both cases. As a result, despite its revisionist aims, Prussia was not ready to stand in a war against Franz Joseph who was operating in a regime of

Table 6.1: PRUSSIAN WAR INVOLVEMENT AND ITS OPPONENTS, 1850-1871

DISPUTE NAME	<i>Humiliation at Olmütz</i>	<i>Second Olmütz</i>	<i>Schleswig-Holstein War</i>	<i>Seven Weeks War</i>	<i>Franco-Prussian War</i>
PARTIES	<i>Prussia-Austria</i>	<i>Prussia-Austria</i>	<i>Prussia-Denmark</i>	<i>Prussia-Austria</i>	<i>Prussia-France</i>
PARAMETERS	(1850)	(1861)	(1863)	(1866)	(1870-1871)
<i>Contestation - Prussia</i>	High	High	Low	Low	Low
<i>Inclusiveness - Prussia</i>	Moderate	Moderate	Moderate	Moderate	Moderate
<i>Contestation- Opponent</i>	Low	Low	High	High	High
<i>Inclusiveness - Opponent</i>	Low	Low	High	Moderate	Moderate
PROCESSES					
<i>War Expenditure - Prussia</i>	Restricted	Restricted	Unrestricted	Unrestricted	Unrestricted
<i>War Expenditure - Opponent</i>	Unrestricted	Unrestricted	Unrestricted, weaker	Restricted	Restricted
<i>War Onset -Revisionist</i>	Prussia	Prussia	Prussia	Prussia	Prussia
<i>Dispute Outcome - Prussia</i>	Capitulation	Capitulation	Victory	Victory	Victory

relatively uncontested tone and Prussia had to accept one of the worst humiliations a European state has ever been subjected to. These two cases and the causal process observations within them provide confirmatory evidence for the theory's predictions about the contestation feature of polity and war onset behavior. Given the unrestricted nature of Franz Joseph's political system and as a result its uncontested ability to channel resources for military expenditures, Prussia could not take a chance to go to war with Austria and we observed the capitulation outcome. As a result, these two cases confirmed that a war route is not chosen when the opponent leader is operating under an uncontested regime, but does not inform us about what would have happened if a war occurred.

The war cases - Schleswig-Holstein War, Seven Weeks War and Franco-Prussian War - illustrate the more striking aspects of the model. In all the cases, we have observed a war-outcome despite the irrationality of such a move by opponents of revisionist Prussia. We observe that in Schleswig-Holstein case the issue indivisibility on the part of Denmark was the main reason of the war. Unrestricted in its out-of-budget military spending as a result of the accumulated and undistributed resources in previous years, Prussia defeated Denmark and forced it to cede Schleswig, Holstein and Lauburg to Prussia through the Treaty of Vienna. In this case, we also observe the role of inclusiveness of the Danish system and its effect on war effort. Prior to the war, lacking sufficient resources for mobilization, the Danish King Christian XI had extended the franchise to all adult males to ensure a sufficient supply of reserves in case of a war with Prussia.

Similarly, we observe that how the ability of Bismarck to divert resources for military expenditure illegally, again forced upon the parliament, led to a decisive victory in Sadowa against the Austrian Army in 1866. In this case, we have seen that strong opposition in Austrian parliament starved the army in the years preceding the war and that Franz Joseph was very attentive and trying to avoid the war with Prussia in every possible way. The weakness and slow mobilization capacity of the Austrian army was actually the immediate cause why Austria could not avoid the war. Given the approaching threat of war, the army tried to compensate its speed with a secret mobilization. Short after this move of the army, it met the Prussian aggression and was very swiftly defeated in Sadowa by the Prussian army.

Lastly, in the Franco-Prussian War, the ability to Bismarck to accumulate a military treasure led the Prussian Army to change the game in European balance of power with its victory against Louis Napoleon's army at Sedan. Bismarck's ability to divide and control the opposition and greater ability to repress protests in the preceding years had given him an unparalleled range of maneuver to discretionize government resources for military expenditures. Without this discretionized budget and the subsequent armament, German armies might have been compelled to

retake Rhine after it had been occupied and could not have confined the war to French frontier. In France, the domestic balance of power was favoring the Corps Legislatif over Louis Napoleon. Not only did the parliamentarians in the Corps Legislatif reject the army reform necessitated by the need of Napoleon to balance expanding Prussian power, they also sabotaged it along with the opposition press by discounting its advantages and exaggerating its negative consequences. Similar to the fate of Austria, Napoleon III, despite the weakness of his army and inability to convince Austria and Italy for alliance, had to initiate the war to avoid increasing imbalance in power which resulted from Bismarck's manipulations of the Hohenzollern candidacy for the Spanish throne at the time<sup>18</sup>. Napoleon could not overlook any move by Bismarck that may strengthen Berlin's position. Short after the candidacy question, Moltke defeated the French army at Sedan, which led to the collapse of the Second Empire.

A separate consideration that received attention in military history is why Sedan was the last major war from which Germany emerged the victor and why did Germans fail in World War I. As Ferguson (1992) documents, Germany's position vis-a-vis Russia and France was deteriorating. However, the shortage of funds was not an explanation in itself as German economy was creating enough wealth and income in gross terms to meet the foreign policy needs of the state as a whole. The most optimal action for Germany could be to respond Russian and French challenge by increasing military expenditure through taxation, borrowing or through decreasing civil expenditures. German Reich's military expenditure in 1913/1914 did not exceed 3.5 percent of its GDP on defense - less than the proportions spent by both France (3.9 percent) and Russia (4.6 percent). Given the size of German economy and its population eligible for military service, why did Germany could not match its opponents in proportional terms despite the fact that it had available material resources? Why, if the Germans were right to think that their military position was deteriorating, did they not seek to react to this shift in power balance by increasing their defense expenditure? Ferguson (1992) directs us to the central role of domestic politics as the only explanation of this failure and underscores the importance of the budgetary stalemate caused by the inability of William II to force military budget upon parliamentary institutions - particularly Reichstag with the power to approve or disapprove government expenditures. As a result of the post-German unification concessions made to Reichstag to include an unrestricted control of the military budget and the increasingly pivotal role of anti-Reich elements within the parliament, Germany could not generate enough funds for military expenditures despite ample

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<sup>18</sup> A pro-Prussian throne in south-west could further jeopardize the position of France when it engages in war in the east with Prussia.

economic resources that would increase the chances for German victory<sup>19</sup>.

This in-depth case study of German unification along with the large-N empirical analyses of each individual link - war-time war effort generation, conflict involvement behavior as well as war winning - conducted in previous three chapters allowed us to employ both qualitative and quantitative process-tracing of the causal mechanisms extracted from the game theoretical model. Analysis of the individual links on three major conflict processes has been used as a means of bolstering confidence in the theory and the substantive evidence confirm the specific and general implications of the theory in its micro and macro causal foundations.

Contribution of this case study for theory development is two fold. An important avenue for future research is an extension of the model to a continuous time version. Further study should focus on extending the present theoretical model to include dynamics of expectations about future and generate predictions regarding when and how leaders will face commitment problems and the conditions under which preemptive and preventive wars occur. Secondly, we have seen in the case of France under Napoleon III an acute need and failed search for alliances against Prussia. The model presented in this thesis does not explain endogenous alliance formation. Understanding how the parameters in the model affect alliance formation would help us to account for the variation in war durations and joining behaviors.

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<sup>19</sup> For further details, see Ferguson, N. (1992). Germany and the Origins of the First World War: New Perspectives. *The Historical Journal*, 35(03), 725–752. Ferguson, N. (1994). Public finance and national security: the domestic origins of the First World War revisited. *Past and Present*, 141–168.



# Chapter 7

## CONCLUSION

I BEGAN this study with two statements from the so called realist thinker Niccolo Machiavelli. Shortly after presenting these statements, I stated that I would present a theory of international conflict processes that can provide a unifying explanation for regime-type and (1) war expenditure, (2) war outcomes, (3) deterrence and (4) peace processes. In a unified conceptual framework, I showed that these four chains are interconnected and this framework help us understand partially explained and partially overlooked phenomena of (1) arsenal of democracy & autocracy, (2) democratic & autocratic triumphalism, (3) democratic & autocratic deterrence and finally (4) democratic & autocratic peace. I have shown that the theory received empirical support from empirical large-N statistical analyses and in-depth case study of wars of German unification. I believe the new framework provides a useful means for thinking about how leaders' reselection incentives manifest themselves in conducting their foreign policies and believe that it is a fruitful framework upon which to base future research. I will conclude with a brief discussion of the main causal hypotheses of the theory and a summary of the statistical and in-depth case study evidence.

The essence of the theory is this: International conflict processes from militarization to deterrence, victory/defeat to peace and war are inherently linked to the incentives facing the leaders running these states. Leaders consistently are under pressure of international challenges and in containing these challenges, they face additional challenges from the “within”. As a result, they need to counteract the international challenges to the national security and the domestic challenges to their office. The difficulty for them is to balance these two challenges and find a way to limit expenditures in a way that ensures a favorable outcome outside and stability of the leader inside. This is best of the both worlds and not every leader can achieve this and they can do so only under certain conditions: Either the coalition of the leader is interested in a successful delivery of a foreign policy good over domestic goods or the leader can achieve to contain the international threat with resources she can keep under her discretion – either accumulated over time or the current budget share she need not distribute. I have shown that these two factors are directly linked to two persistent features of democracy – inclusiveness and contestation. Inclusiveness incentivizes leaders’ coalition, uncontestedness give leaders an ability to accumulate resources to contain such shocks. These two features allow us to use the theory to explain seemingly distinct and somewhat contradictory empirical findings in democratic peace research program. I now present the stylized facts again I presented in the introduction:

1. The tendency of some democracies not to fight one another (e.g. Maoz and Russett, 1993; Russett, 1994).
2. The tendency of some democracies not to be targeted (e.g. Reiter and Stam, 1998).
3. The tendency of some democracies not to face war-escalatory behavior from other states (e.g. Fearon, 1994).
4. The tendency of some democracies to have higher war effort than some democracies and non-democracies (e.g. Lake, 1992; Schultz and Weingast, 1998; Bueno de Mesquita et al., 1999).
5. The tendency of some democracies to win the wars they become involved (e.g. Lake, 1992; Reiter and Stam, 2003*a*).
6. The tendency of some autocracies not to fight one another (e.g. Peceny, Beer and Sanchez-Terry, 2002; Bennet, 2006).
7. The tendency of some autocracies not to be targeted (e.g. Rousseau et al., 1996).

8. The tendency of some autocracies not to face war-escalatory behavior from other states (e.g. Weeks, 2008).
9. The tendency of some autocracies to have higher war effort than some democracies and non-democracies (e.g. Carter and Palmer, 2014).
10. The tendency of some autocracies to win the wars they become involved (e.g. Tocqueville, 2010; Beckley, 2010; Reiter, Stam and Downes, 2009).

At first look, these empirical findings individually appear distinct and that each requires its own separate explanation. This is in fact the approach of the aforementioned studies. From the perspective of the theoretical model developed in this thesis, these are all interconnected phenomena and can be explained and empirically accounted for by the analytical and empirical disaggregation of regime type into its very dimensions: inclusiveness and contestation. The theory of interstate conflict processes based on these two dimensions is explained below and I summarize the empirical record regarding each hypotheses derived from it.

## 7.1 Military Expenditure of States

In this thesis, I aimed to answer the question of how regime type affects war-time defense expenditure of states. My theoretical model indicated that when leaders consider how much to spend for military expenditure, they assess two factors: how much money they have at hand from current budget and previous years (opportunity effect) and/or how much their supporters are willing to forgo the private rewards they receive in favor of a war expenditure (willingness effect). I now summarize these two mechanisms:

*Opportunity Effect:* a leader's budget is the sum of the current years' budget and a proportion of each previous year's budget. The cost of defection for coalition members within the polity determines how much leader kept in previous years. As a result, depending on the level of contestation within the polity, some leaders were able to amass more money than others (increasing contestation shrinks this amount and decreasing contestation increases it). Hence, leaders' ability to make military spending increases as contestation decreases. As a result, I tested the following hypothesis:

***H<sub>p</sub> 1:*** *Decreases in the level of contestation in a polity increases military expenditure.*

*Willingness Effect:* A leader's supporters depose him if the leader uses the budget for military expenditures and what they can get in the form of financial rewards is higher. They also depose the leader if he distributes the budget in the form of financial rewards and what they can get from increasing the probability of victory through military expenditure is higher. As a result, leaders choose to use the budget for military expenditure as long as the financial rewards per supporter is lower than the utility of fighting (in this case, they expect to receive victory with the probability of victory). Similar to selectorate theory's deduction, as the size of the coalition (the supporters with the power to keep or depose the leader) increases the financial rewards distributed to each become very small compared to victory outcome. Thus, leaders anticipate this and expend resources to financing the war to keep their offices. In Dahl's typology, this dimension corresponds to the inclusiveness feature. As a result, I tested the following hypothesis:

***H<sub>p</sub> 2:*** *Increases in the level of inclusiveness in a polity increases military expenditure.*

*Empirical Assessment of War Expenditure Hypotheses:* Large-N analyses in Chapter III showed that inclusiveness and uncontestedness increase the ability of states to outspend their rivals and uncontested leaders are slightly more advantageous in armament than leaders operating in inclusive regimes when the war starts. We also observed that inclusive regimes and uncompetitive regimes experience decreases in their armament levels as the war continues, however, this temporal effect is empirically more dramatic for inclusive regimes than uncompetitive regimes. This finding suggested that the war chest of autocracy is slightly more robust than the arsenal of democracy when a war starts and this difference is more pronounced as the war continues. These results hold even when we control for the effect of a vast variety of explanations suggested within the literature.

To illustrate the causal processes that underlie the formal model's comparative statics predictions and the associated quantitative findings, I analyzed Egypt's war effort during Six Days War (1967) and Yom Kippur War (1973). I found that Nasser's effort of keeping the important classes of the society satisfied to by-pass the military's role for his survival left him with less to allocate for the coming war - Six Days War of 1967 - with Israel. With the military's gradual and consequential decrease in politics during the post-1967 era brought about a reshuffle of the distribution portfolio of Nasser in favor of military expenditures and the leaders' (post-1967 tenure of Nasser and Sadat) decreasing reliance on the military elite decreased the incentives of Nasser and more significantly for Sadat to compete for loyalty of the society in general, which had a consequential effect on the military expenditure of Egypt 1973 war.

I also conducted historical case study on wars of German unification and consulted on authoritative historians' view on war expenditure in Prussia, Denmark, Austria and France. I found that the conflict behavior in all of the cases hinged upon the cumulative effect of incumbent leaders' capacity to resist opposition challenges both during and preceding years of wars in mainly the uncontested regimes of Prussia in post-1862 and Austria in 1850. These cases can be compared to the competitive regimes of Prussia in 1850 and 1861, Austria in 1866 and France in 1861-1871 in their war effort generation. As we saw in Chapter VI, whereas the regimes with lower levels of contestation were able to generate higher war effort, the leaders operating under competitive regimes were relatively limited in their war effort generation. The section on the Schleswig-Holstein War showed how the inclusiveness dimension in the Danish political system led to a similar outcome during the Schleswig-Holstein war. We observed that when Danish King Christian XI knew that war was coming, he extended franchise to all adult males and this was related to the foreign policy concerns of the king, particularly because the extension of franchise to all adult males would translate into a sufficient supply of soldiers through conscription in case of a war.

*Extant Literature & Empirical Contribution:* The role of democracy on war expenditure is a matter of dispute and the empirical literature direct us to mixed results. Bueno de Mesquita et. al.'s (2004) with a measure of coalition size finds that inclusiveness of a polity increases war expenditure. However, Carter and Palmer (2014) find that democracy – measured by the composite Polity IV index – decreases war expenditure of a state, which may come across as a contradiction. This latter strategy compresses a multidimensional concept into one operational definition; hence, it essentially places the same coefficient in front of all of Polity IV's component (Bayer and Bernhard 2010). This strategy forces a negative coefficient on the sub-components including inclusiveness dimension, which had been shown to have a positive effect. As a result, the extra empirical dimensions captured by the Polity IV index are likely to have a negative effect on war expenditures. From a Dahlian point of view, I showed that this extra empirical dimension is contestation by using a dataset from a recent effort to identify the Dahlian dimensions of poliarchy from 13-15 widely used democracy indicators (Coppedge, Alvarez, and Maldonado 2008).

*Extant Literature & Statistical Contribution:* Previous studies in this literature imposed restrictive assumptions on the temporal distribution of the effect of each variable in their estimation models. This study does not assume a temporal distribution for the data generating process but generalizes the empirical model so that we extract this distributional information from the data. In doing so, the study adopts a fully dynamic Error Correction specification (Bardsen 1989), uses of a wide array of the information from the data, and estimate the short-run, long-run effects of all right-hand side variables and their corresponding median and mean lengths.

## 7.2 War Outcomes

Given military expenditure propositions received substantial support from the data and historical case studies, I proceeded to answer the question of how regime type affects war-winning propensity of states and test the theory's predictions on war outcomes. Given military expenditure of a state increases its victory probability and that of the opponents decrease it, I tested the following hypotheses on victory probability:

***H<sub>p</sub> 3:** Decreases in the level of contestation in a polity increases the probability of victory of the state.*

***H<sub>p</sub> 4:** Decreases in the level of contestation in the opponent state decreases the probability of victory of the nation.*

***H<sub>p</sub> 5:** Increases in the level of inclusiveness in a polity increases the probability of victory of the state.*

***H<sub>p</sub> 6:** Increases in the level of inclusiveness in the opponent state decreases the probability of victory of the state.*

*Empirical Assessment of War Outcome Hypotheses:* Large-N analyses in Chapter IV showed that contestation and inclusiveness features of democracy pull war-winning probabilities of states to the opposite directions: whereas the relatively less competitive polities are more likely to win the wars they become involved and address the insights of the pessimists and explain autocratic triumphalism, inclusiveness dimension pull the war-winning propensity upward and give us insights on why democracies also win wars they become involved and explain democratic triumphalism. Substantively, uncontestedness of a regime increases the probability of victory by 20 percent. Uncontestedness of the opponent decreases state A's victory probability by 12 percent. Uncontested regimes are 32 percent more likely to win when they encounter a non-inclusive regime. Moreover, inclusiveness of a regime increases the probability that it wins the war by 40 percent. Inclusiveness of the opponent decreases state A's winning probability by 30 percent. Inclusive regimes are 70 percent more likely to win when they encounter a non-inclusive regime. The chapter showed that contestation is a liability whereas inclusiveness is a blessing for war outcomes.

In my in-depth study of wars of German unification, I found that war prowess of states depended on the level of contestation within the regime: I observed a high contrast between the uncontested regimes of Prussia in post-1862 and this case was compared to the competitive regimes of Prussia in 1850 and 1861, Austria in 1866 and France in 1861-1871 in their war effort generation and the subsequent war outcomes. I observed given his ability to make first illegal then

unstoppable military expenditures, Otto von Bismarck's army was well-equipped to defeat Denmark (1863), Austria (1866) and France (1871). In the latter two, the leaders were not as secure as Bismarck was and they could not force an army bill despite their knowledge that war was coming soon. The former, Denmark, we observed that when Danish King Christian XI knew that war was coming, he brought franchise to all adult males and this was related to the foreign policy concerns of the king, particularly because the extension of franchise to all adult males would translate into a sufficient supply of soldiers through conscription in case of a war. Denmark had this "willingness" advantage but it was not enough to defeat Bismarck's army as a result of the divide in the tax revenue of both countries.

*Extant Literature & Empirical Contribution:* The contemporary scholarly empirical literature and the long-standing philosophical debates revolve around whether democracy is a luxury that states cannot afford during warfare. The answer to this question in the literature is quite mixed and they vary from "Yes, they are" (i.e. Lake 1992, Reiter and Stam 2003), "Yes, but it hardly matters" (Desch 2002) to "No, they are not" (Downes 2009, Henderson and Bayer 2013) and "No, they are even worse" (Beckley 2010). The literature finally indicated both democratic and autocratic advantage (Reiter and Stam 2009). As a result, in the empirical literature, democracy's record as an agent of military effectiveness is a matter of dispute. A much clearer understanding of the relationship between democracy and war-winning were obtained by constructing a theory upon the dimensions that constitute democracy and analyzing the implications of this theory. The framework I propose here simultaneously explains the sources of autocratic and democratic prowess and simultaneously explain these two positions and corroborate the curvilinearity hypothesis (Reiter and Stam 2009). The findings also address concerns raised in the recent literature that regime type – measured as a composite index – hardly matters (Desch 2002): the opposing effects exerted by the two dimensions explain why a composite index had a small magnitude in previous research.

### **7.3 Deterrence, Peace & Resort to Violence**

Following both the logic of the theoretical model and based on the substantive empirical record on military expenditure and war outcome predictions, I proceeded to answer two questions: How does regime type affect states' deterrent capacity? How does this deterrent capacity affect inter-polity peace? The logic of the theoretical propositions were quite straightforward: Leaders should be more likely to solve their disputes with methods other than a war if they predict their opponents are more likely to increase their armament levels and decrease these states' victory proba-

bility. As a result, if the opponent has a high militarization capacity, targets should avoid escalatory behaviors that result in war and potential initiators should avoid an initiation to begin with. Thus, since militarization capacity is increasing in inclusiveness and decreasing in contestation, I tested the following propositions:

***Hp 7:*** *If a dispute is initiated, a decrease in initiator's contestation level is likely to decrease target's propensity to escalate the dispute to war level.*

***Hp 8:*** *If a dispute is initiated, an increase in initiator's inclusiveness level is likely to decrease target's propensity to escalate the dispute to war level.*

Moreover, a dissatisfied state is less likely to engage in a status quo changing behavior if the opponent has a higher militarization capacity. Thus, given militarization capacity is increasing in inclusiveness and decreasing in contestation, hence, I tested the following propositions:

***Hp 9:*** *A decrease in targets' contestation level is likely to deter an attack or status quo changing behavior by other states.*

***Hp 10:*** *An increase in targets's inclusiveness level is likely to deter an attack or status quo changing behavior by other states.*

*Empirical Assessment of Deterrence Hypotheses:* Chapter V showed that leaders feeling secure of their reselection are less likely to be targeted by a challenger and if they initiate a war, their opponents were less likely to escalate to conflict to a war. Substantively, the large-N analyses found that opponent's uncompetitiveness decreases the utility of a state from conflict initiation and this effect translates into 9 percent reduction in the use of force. We also observed that initiator's uncompetitiveness deters war escalatory behavior of the target and substantively leads to 21.8 percent reduction on the probability of a war-escalation. As a result, autocratic deterrence was found on the contestation dimension and any decrease on this dimension discourages status-quo changing and/or escalatory behavior of the opponents.

Chapter V also showed that leaders operating under inclusive regimes are less likely to be targeted by a challenger and if they initiate a war, their opponents were less likely to escalate to conflict to a war. Substantively, the chapter found that opponent's inclusiveness decreases the utility of a state from conflict initiation and this effect translates into 18 percent reduction in the use of force. We observed that initiator's inclusiveness deters war escalatory behavior of the target and this substantively translates into 42.9 percent reduction in the probability of a war-escalation. As a result, democratic deterrence is found on the inclusiveness dimension and any



increase on this dimension discourages status-quo changing and/or escalatory behavior by the opponents.

In my in-depth study of wars of German unification in Chapter VI, I found that deterrent capacity of states depended on the level of contestation. In 1850, we observed a Prussian capitulation – considered as the worst humiliation a European nation faced at the time and called as Humiliation at Olmütz. The main reason behind the capitulation of Prussia was the highly contested nature of Manteuffel's hold on to power against a strong domestic opposition in the form of an imminent revolutionary threat and renewal of 1848 riots and the non-approval of the liberals of the ordinary military budget. This belief of threat among the key decision makers in Prussia was so firm that the army served as a domestic police force for the next ten years within the country, thus, Manteuffel did not have any option but to back down. Any commitment of soldiers for foreign policy even for very natural interests was perceived as leaving the regime weak in the face of a revolution. Manteuffel, who signed the Convention of Olmütz, also indicated that “a war [with Austria] would benefit only the liberals and the democrats and that by releasing the force of revolution once more, it would destroy the institution of monarchy in Prussia” (Craig 1955, 131). In addition to the revolutionary threat, the power of the liberals in the parliament also made it difficult to secure approval for even normal military budgets. Given these two major problems in the domestic scene of Prussia, Manteuffel formally abandoned the plans for a new German Union as the armed forces would be committed solely against revolution at the home front. On the Austrian front, the balance between revolutionaries and Franz Joseph was vastly different. After the army crushed the revolutionary resistance, Franz Joseph and his minister were more confident to divert the troops for an interstate war than their Prussian counterparts. Moreover, Franz Joseph was not limited by any representative institution in its decision for warfare and state finance. Without any domestic limitation or deposition risk from both a dissolved parliament and the suppressed revolutions in Italy and with the help of Russia's aid, in Hungary, Franz was able to turn his full attention to his Prussian counterpart. Upon the ultimatum from Austria, Frederick Wilhelm and his minister Manteuffel had no option, but to back down to avoid a potential liberal uprising within the country and a military defeat in the face of opposition's stubborn policy to block increases in military spending vis-à-vis then less vulnerable Franz Joseph I.

I was able to trace the role of inclusiveness on deterrence, though in an indirect way. The inclusiveness led Denmark to be risk acceptant vis-à-vis its strong opponents because there was no other way for Monrad to keep his office, who was responsible to National Liberals in the parliament. This was very obvious in early days of the conflict when England invited Danish representatives for the London Conference for the peace talks, the Danish government was not

willing to resolve the issue with negotiations. On a telegram from a British diplomat - Sir Augustus Paget - in Copenhagen to the British Foreign Office note on February 23, 1864: "Quaade [a Danish Diplomat] said that nevertheless the feeling of the country was and it was shared by most of the Cabinet, that Denmark was now in so bad a position for negotiating that it would be better to trust to the chapter of accidents for the chance of things turning their advantage"<sup>1</sup>. Even though Denmark accepted peace talks and attended the London Conference and a temporary ceasefire was agreed after the fall of Vejle, Danes rejected the proposals for division of Schleswig along the national lines and the conference broke down as a result of the persistence of the opinion of National Liberals of Denmark that their state were being asked to concede more than necessary. As a result, in this example, we observe that inclusive regimes are indeed less deterrable.

Following both the logic of the theoretical model and based on the substantive empirical record on military expenditure and war outcome predictions and deterrence mechanism, I proceeded to test the theory's predictions on inter-polity peace. The theoretical model indicated that once latent militarization capacity exceeds a certain threshold for both parties, no one can achieve profit from going to war as costs are sufficient enough to deter both parties from going to a war. As a result, I tested the following hypotheses:

***Hp 11:*** *A decrease in dyadic contestation is likely to decrease the probability of a conflict onset in a dyad.*

***Hp12:*** *An increase in dyadic inclusiveness is likely to decrease the probability of a conflict onset in a dyad.*

*Empirical Assessment of Inter-polity Peace Hypotheses:* Non-directed dyadic analyses in Chapter V indicated that inclusive regimes as well as uncontested regimes enjoy a separate peace among each other. Substantively, increasing uncontestedness from its minimum (0) to its maximum (1) decreases probability of a conflict onset by 13.5 percent. Moreover, increasing inclusiveness from its minimum (0) to maximum (1) decreases probability of a conflict onset by 32.9 percent. The deterrence model successfully explains autocratic peace through uncontestedness dimension whereas democratic peace through inclusiveness dimension.

*Extant Literature & Empirical Contribution:* The current literature revolves around three main models to explain peace and conflict among autocracies and peace among autocracies: (1) constraint model (e.g. Maoz and Russet 1993; Dixon 1994), (2) informational model (e.g. Fearon 1994,

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<sup>1</sup> Paget to Russell, No. 139, March 9, 1864, confidential (Record Office, London)(cited in Steefel 1932, 203).

Schultz 1998), (3) deterrence model (Bueno de Mesquita et. al. 1999). The first two models constitute the alternative models and the last one – deterrence model – is the particular strand this study is situated within. These models yield the following predictions:

- Constraint model predicts that inclusiveness and contestation of nations should increase their propensity to be attacked.
- Informational model predicts that contestation of nations should decrease the propensity of war-escalation of their enemies.
- Deterrence model indicates inclusiveness should decrease and contestation of nations should increase the propensity to be attacked and propensity of war-escalation of their enemies.

In directed-dyadic setup, I found no support for informational model and partial support for constraint model, whereas complete support for deterrence model: Constraint models' prediction about inclusiveness and informational models predictions about contestation did not receive support from the data, whereas all the four predictions of the deterrence model received confirmation.

However, in this setting it was hard to distinguish the observable implications of deterrence model and constraint model on the role of contestation dimensions. Both models predict contestation to be a source of foreign policy liability and receive support from data, whereas informational model did not receive much evidence. In order to gain additional leverage and distinguish the overlapping implications of the three approaches, I utilized a non-directed dyadic analysis. The non-directed dyadic analysis offered us additional leverage on whether contestation decreases inter-polity peace as predicted by the deterrence model or increases as predicted by the constraint model. The empirical analyses indicate that as predicted by the deterrence model, inclusiveness increases inter-polity peace whereas contestation decreases it. As a result, we can conclude that peace among autocracies and peace among democracies is a result from the deterrence generated through increasing inclusiveness and decreasing contestation.

## **7.4 Implications, Directions and Limitations**

The findings presented in this study suggest that conventional understanding of regime type and foreign policy nexus is at best inadequate and at worst deficient. The focus of the previous scholarship on the variation in aggregate composite democracy indexes in foreign policy

behavior in general and conflict initiation/reciprocation, war time militarization as well as war outcome in particular did not allow us to disentangle the opposing forces exerted by its very dimensions and masked the constituent disaggregate relationships. As presented throughout the thesis, the disaggregation approach, drawing on the timeless advices of Machiavelli, concerns of Alexis de Tocqueville and Alexander Hamilton, allowed us to introduce a formal theory built upon the dimensions of democracy and generated a new perspective for three significant bodies of the literature with its novel predictions. The pay-off to this conceptual disaggregation and the corresponding empirical differentiation is, as we have seen, to corroborate various theoretical predictions in the existing literature and more importantly, generate novel ones that are powerfully substantiated with empirical evidence using both a quantitative statistical and a diplomatic historical case-study approaches. In this way, the theoretical model unified various phenomena that come across to some as mutually exclusive.

Like any social-science theory, the theory presented here is highly simplified. To focus on the mechanisms that are considered as important, I abstracted it from various mechanisms. An important avenue for future research is an extension of the model to corroborate endogenous alliance formation. Further study should focus on extending the present theoretical model to include an alliance dimension and generate predictions regarding when and how leaders will be willing to make concessions for third party involvement in their existing dispute. This will not only allow us to bring further predictions when and why inclusiveness and contestation dimensions of democracy will allow and press for joining an already initiated dispute, but also will help us explain the variation in war duration for originators and the joiners.

The theoretical framework can be fruitfully extended to explain civil conflicts. One of the major findings within civil conflict literature has been the inverse U relationship between regime type and civil war onsets, that is, we are more likely to observe a civil conflict onset in middle categories in democracy-autocracy continuum. Existing studies have heavily relied on composite democracy indexes. I expect that inverse U relationship is mainly driven by the increasing levels of contestation within the political system. Even though competitive oligarchies (regimes with low levels of inclusiveness and high levels of contestation) and inclusive hegemons (regimes with high levels of inclusiveness and lower levels of contestation) constitute the middle categories, the theoretical model expects that the former is the most likely case for a civil war onset and the latter is immune to such a deficiency.

Furthermore, the theoretical framework with several modifications can be extended to explain the politics of foreign aid effectiveness. Aid intake does not necessarily translate into desired outcomes even when we set some of the important variables such as donor motives, aid types and

economic policy regime within a country to their most desirable combinations without a deeper appreciation of incentives facing domestic decision-makers in aid-receiving countries. I argue that whether aid is channeled to productive public policies or diverted to economically unproductive goals of governments is determined by the inclusiveness of the regime and the extent of aid monies used for this purpose by the level of contestation in a given regime. I expect those leaders feeling the most secure in a non-inclusive system as the worst performers in distributing aid, whereas leaders feeling the least secure in an inclusive system as the most likely candidates for aid effectiveness.

Future studies should extend the model to allow for an endogenous regime change in the expectation of a war. In an influential article, Gourevitch (1978) likens war to the market: it punishes some forms of organization, rewards others and induces states to organize themselves internally so as to meet these external challenges. On this nexus, the implications of this study are stark for democracy theory. State's need to protect its territorial integrity and its interests abroad relies on the willingness and opportunity effect available to leaders and this in turn to the configuration of the domestic political system. The international system rewarded states with inclusive regimes and punished those failed to open up the system to the larger population as evidenced throughout my study. In the case study chapter, we particularly observed the extension of franchise to all adult males in Denmark. As Jespersen (2004, 61) notes this was related to the foreign policy concerns of the King, particularly against Prussia because the extension of the franchise to all adult males would translate into conscription of a sufficient supply of soldiers in case of a war. As Tilly (1992) also observed, it is no coincidence that anticipation of war led to broader political participation of the population that had played no role in politics: Elites' need for the cooperation of the masses for the war effort resulted in broader political inclusion. Moreover, the interstate system rewarded states with uncontested executive exercise of power and punished those regimes with highly contested configuration. Expectations of substantial militarization lead to repercussions in the contestation dimension in a reciprocal way: In order to discretionize resources for the war-chest, leaders shut the system under a state of emergency so that no one can effectively challenge the conduct of the government during the warfare. A recent edited volume on the effects of war on regime type focuses on how anticipation of an interstate war affects inclusiveness and contestation features of Dahl's polyarchy: mobilization need may increase inclusiveness or decrease contestation (Kier and Krebs, 2010, 7).

Under a threat environment and absent any third party alliance commitments, state leaders face with the choice of either securing nations' foreign interests or keeping contestation intact. More often, contestation is the victim of this threat environment as we observed in 19th century's

Prussia. When contestation remains robust, the national security becomes the victim as in the Second French Empire. Throughout the Cold War, Western European countries experienced neither reversal towards authoritarianism nor experienced an invasion by the USSR. This European experience can in part be explained by the American nuclear umbrella and security guarantees as a major component of the defense of Western Europe against a potential Soviet aggression. Europe is not alone in this respect. For example, during Arab-Israeli wars, we also observed the Israeli war effort was financed out substantially by American assistance and this in turn was enough to prevent reversals in contestation dimension in Israel. Democracy promotion comes at a price and policy makers should heed this important effect of threat environment on their assistance decisions. Concerning the inclusiveness dimension, the pull and push of the threat environment induces elites to bargain with the larger segments of society that had little influence before for the war effort. Assisting autocratic war effort or third-party security guarantees is likely to retard this process toward inclusiveness; therefore, the decision to support should depend on other ethical priorities.

We find peace among autocracies and among democracies in the least likely but a rather intuitive place: military deterrence. To promote peace abroad, aid-donors should condition peacetime foreign aid on improvements on the extent of inclusiveness – promoting expansion of the franchise to all citizens as the benefactor of the distributive politics.

To conclude, in order to locate a better approximation of the bargaining range with other states and avoid a potential of ex post inefficient war, governments need to heed the significant militarizing effects of inclusiveness and uncompetitiveness in their calculations of victory probabilities and hence increase the likelihood that a dispute with another state is resolved on the table rather than a battle.

# MEASUREMENT APPENDIX

## Measurement of Inclusiveness and Contestation

Table 7.1: Measuring the Dimensions: Inclusiveness and Contestation

Variable	Source	Coppedge et al. 1950-2001	Miller 1816-2004
<i><b>Inclusiveness Dimension</b></i>			
Adult Suffrage	Bollen	✓	✓
Legislative Selection	Banks	✓	✓
Women Political Rights	CIRI	✓	✓
Effective Executive Selection	Banks	✓	✓
Index of Participation	Vanhanen	✓	✓
Openness of Exec. Rec.	Polity IV		✓
<i><b>Contestation Dimension</b></i>			
Civil Liberties	Freedom House	✓	
Political Rights	Freedom House	✓	✓
Index of Competition	Vanhanen	✓	✓
Executive Constraints	Polity IV	✓	✓
Comp. of Pol. Participation	Polity IV	✓	✓
Type of Regime	Cheibub and Gandhi	✓	✓
Comp. of Exec. Recruitment	Polity IV	✓	✓
Party Legitimacy	Banks	✓	✓
Legislative Effectiveness	Banks	✓	✓
Nomination Process	Banks	✓	✓
Electoral Self-Determination	CIRI		✓

## **Regime Type Dimensions: Inclusiveness**

**Adult Suffrage** (Bollen): The percentage of adult population over 20 years of age that has the right to vote in national elections.

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**Legislative Selection** (Banks): Indicates the extent to which legislatives are elected by direct/indirect elections or heredity/ascription.

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**Women Political Rights** (CIRI): Measures women's right to vote, join political parties and submit petitions.

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**Effective Executive Selection** (Banks): Measures the inclusiveness of the electorate for chief executive, i.e. whether the selectorate is one person, a body of elites or a large number of voters.

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**Index of Participation** (Vanhanen): Percentage of total population that voted in the last election.

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**Openness of Executive Recruitment** (Polity IV): Reflects the size of the selectorate for public offices, from hereditary succession to designation by an elite body to competitive election.

## **Regime Type Dimensions: Contestation**

**Civil Liberties** (Freedom House): Composed of media pluralism, judicial protection of freedom of speech and the press, repression of government critics, violations of civil rights.

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**Political Rights** (Freedom House): Composed of existence of elections and competing parties, protection of the right to compete in elections, structural unfairness in elections and disruption by coups or fraud.

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**Index of Competition** (Vanhanen): The percentage of vote won by opposition parties and percentage of legislative seats received by the parties other than the largest party.

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**Executive Constraints** (Polity IV): The extent of institutionalized constraints on the decision-making powers of chief executives.

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**Competitiveness of Political Participation** (Polity IV): Degree of electoral competition, from suppressed competition to interparty competition

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**Type of Regime** (Cheibub and Gandhi): 1 if democracy.

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**Competitiveness of Executive Recruitment** (Polity IV): Indicates whether executives are competitively elected rather than appointed.

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**Party Legitimacy** (Banks): Scale of legislative exclusion.

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**Legislative Effectiveness** (Banks): Scale of legislature's ability to check executive.

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**Nomination Process** (Banks): Scale of the freedom of party competition and citizen law-making power.

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**Electoral Self-Determination** (CIRI): Indicates how far citizens enjoy freedom of political choice and the legal right and ability in practice to change the laws and officials that govern them through free and fair election

## **Measurement of Variables in Chapter 3, 4 and 5**

A short summary of summary of the dependent variables, independent variables and control variables used in Chapter 3, Chapter 4 and Chapter 5 are presented respectively below at Table 7.2, Table 7.3, Table 7.4.

Table 7.2: Measurement of Variables in Chapter 3: Endogenous Armament and Containing the Shock

<b>Variable</b>	<b>Comments</b>	<b>Source</b>
<b>Dependent Variables</b>		
<i>Military Expenditures</i>	Total military budget of a state	Singer et al. 1972
<i>Military Expenditures (% of GDP)</i>	Total military budget of a state as a proportion of GDP	Singer et al. 1972
<i>Diehl Index</i>	Regression-based index of over and under armament of a state	Diehl 1985
<b>Independent Variables</b>		
<i>Inclusiveness</i>	Inclusiveness Index	Coppedge et al. 2008
<i>Uncompetitiveness</i>	Reverse of Contestation Index	Miller 2013
<i>War</i>	An interstate dispute with at least 1000 battle-related fatality	Jones et al. 1996
<b>Control Variables</b>		
<i>Capability Ratio A/B</i>	State A's capability as a proportion of State B's capability	Singer et al. 1972
<i>Capability of Allies</i>	Sum of capabilities of allies with a defense pact	Singer et al. 1972
<i>Capability of Rivals</i>	Sum of capabilities of strategic rivals Thompson (2001) identifies.	Singer et al. 1972
<i>Interstate War Deaths</i>	Battle deaths related to an interstate or extra-state conflict	Fordham and Walker 2005
<i>Civil War Deaths</i>	Battle deaths related to an intrastate conflict	Fordham and Walker 2005
<i>GDP</i>	Real Gross Domestic Product (1996)	Gleditsch 2002
<i>Population</i>	Total population	Gleditsch 2002
<i>Polity IV</i>	Composite Democracy Score	Marshall et al. 2002
<i>Institutional Investor Rating</i>	Institutional Investor's Country Credit Ratings	Allen and Diguseppe 2013

Table 7.3: Measurement of Variables in Chapter 4: The Machiavellian Moment: Explaining War Outcomes

<b>Variable</b>	<b>Comments</b>	<b>Source</b>
<b>Dependent Variables</b>		
<i>War Outcome</i>	2 if Victory, 1 if draw and 0 if defeat	Sarkees and Wayman 2010
<i>Military Expenditures (% of GDP)</i>	1 if the state initiated the war	Sarkees and Wayman 2010
<b>Independent Variables</b>		
<i>Inclusiveness</i>	Inclusiveness Index	Miller 2013
<i>Uncompetitiveness</i>	Reverse of Contestation Index	Miller 2013
<b>Control Variables</b>		
<i>Multilateral Balance</i>	The power difference between A's and B's allies	Singer et al. 1972
<i>Bilateral Balance</i>	The power difference between A and B	Singer et al. 1972
<i>Wealth</i>	Gross-Domestic Product	Maddison 2007
<i>Polity IV</i>	1 if composite democracy index has a score higher than 5	Marshall et al.2002
<i>Quality Ratio</i>	Spending rate per soldier	Reiter and Stam 2003a
<i>Strategy 1<sup>a</sup></i>	OMDA/DPOA	Reiter and Stam 2003a
<i>Strategy 2</i>	OPDA/DMOA	Reiter and Stam 2003a
<i>Strategy 3</i>	OADA/DAOA	Reiter and Stam 2003a
<i>Strategy 4</i>	OADM/DAOP	Reiter and Stam 2003a
<i>Strategy 5</i>	OADP/DAOM – Reference Category	Reiter and Stam 2003a
<i>Terrain</i>	An index measuring speed at which vehicles and troops can move in battle location.	Reiter and Stam 2003a

<sup>a</sup>O:Offensive Goals, D: Defensive Goals, M: Maneuver Strategy, A: Attrition Strategy, P: Punishment Strategy

Table 7.4: Measurement of Variables in Chapter 5: Selection Institutions and Resort to Violence

<b>Variable</b>	<b>Comments</b>	<b>Source</b>
<b>Dependent Variables</b>		
<i>MIDs</i>	Militarized Interstate Dispute of any hostility level	Jones et al. 1996
<i>Fatal MIDs</i>	MIDs with at least one battle fatality	Jones et al. 1996
<i>Use of Force</i>	MIDs that employs actual use of force	Jones et al. 1996
<i>War Escalation</i>	MIDs reciprocated to full-scale war	Jones et al. 1996
<i>Crisis</i>	Onset of a Crisis as defined by ICB Project	Hewitt 2003
<b>Independent Variables</b>		
<i>Inclusiveness</i>	Inclusiveness Index	Miller 2013
<i>Uncompetitiveness</i>	Reverse of Contestation Index	Miller 2013
<i>Inclusiveness<sub>LOW</sub></i>	Lower inclusiveness score in a dyad	Miller 2013
<i>Uncompetitiveness<sub>LOW</sub></i>	Lower uncompetitiveness score in a dyad	Miller 2013
<b>Control Variables</b>		
<i>Major Power-Major Power</i>	Initiator and Target are major powers	Singer et al. 1972
<i>Major Power-Minor Power</i>	Initiator is a major power, Target is a non-major power	Singer et al. 1972
<i>Minor Power-Major Power</i>	Initiator is a non-major power, Target is a major power	Singer et al. 1972
<i>Minor Power-Minor Power</i>	Initiator and Target are non-major powers	Singer et al. 1972
<i>Major Power</i>	1 if a state in the dyad is a major power	Singer et al. 1972
<i>Capability Ratio A/B</i>	State A's capability as a proportion of State B's capability	Singer et al. 1972
<i>Capability Ratio</i>	Lower capability as a proportion of higher capability in a dyad	Singer et al. 1972
<i>Alliance Portfolio Similarity</i>	Similarity of alliance list of the two states in a pair	Signorino and Ritter 1999
<i>Revision Type</i>	Revision type of initiator: territory, policy, government and other	Jones et al. 1996
<i>Contiguity</i>	1 if two states are contiguous by land	Bennett and Stam 2000
<i>Distance</i>	Inter-capitol distance between two states	Bennett and Stam 2000
<i>Polity IV</i>	Composite democracy score	Marshall et al.2002
<i>Polity IV<sub>LOW</sub></i>	Lower Polity IV score in a dyad	Marshall et al.2002
<i>Peace Years</i>	Number of years since last dispute	Bennett and Stam 2000



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